# International Conference on Research in Education & Science

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May 19-22, 2016 Bodrum/TURKEY

# ABSTRACT BOOK

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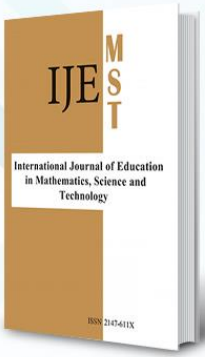
NIZIP EDUCATION FACULTY

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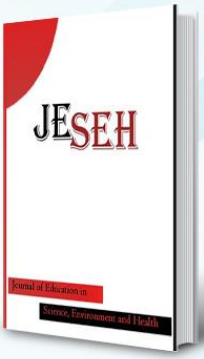


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# INDEX

## CSR COMMUNICATION IN HOSPITALS: STATE OF ART, TASKS AND PERSPECTIVES

*Bouchra Jebari*

Corporate Social Responsibility (CSR) has become widely used in the last two decades, mainly related to companies, CSR can be useful and benefic for other organizations as well, organizations where “social” is part of their basic missions, such as hospitals. The aim of this paper is to examine Corporate Social Responsibility in health sector, and in particularly its communication aspect, we will show what kind of efforts were made in this field, employees engagement , how does the management and shareholders support it and also how does the public perceive this and its main expectations. Through CSR communication channels, research papers and benchmarking studies, we gathered Corporate Social Responsibility policies communicated by hospitals from Asia, Latin America and Europe in order to learn from these experiences and compare them with the African Model (Morocco). At the end of this paper, we present our reflections about this issue, in order to figure out ultimately a proposition of a model of CSR communication policy applicable to hospitals in order to guide them to pursue effective CSR initiatives for a better world.

**Keywords:** Corporate social responsibility, CSR communication, Hospital

## EVALUATION OF HEPATOPRTECTIVE AND ANTI-PERITONITIS ACTIVITIES OF METHANOLIC EXTRACT OF UMBILICUS RUPESTRIS L. IN VIVO.

*Benbia Souhila, Yahia Mouloud, Benhouda Afaf*

The present study is to evaluate the protective effect of methanolic extract of the leaves of the plant Umbilicus rupestris against hepatotoxicity induced by the ethanol and also to evaluate th inflammation induced by the carrageenan. In heptoprotective activity, five groups of 4 rats were treated respectively with distilled water, absolute ethanol ,URMeOH (100 mg / Kg b.w.), URMeOH (200 mg / Kg b.w.) and quercetin used as the reference standard, these treatments were administered orally 30 minutes before the administration of absolute ethanol for 14 days. The results showed that administration of EtOH increased significativeley the level of biochemical parameters TGO, TGP, ALP and BTof pathologic control but the effect of the extract shows that the oral adminstration of (100 and 200 mg / Kg) and quercetin caused a significant decrease ($p \leq 0.05$) of these parameters. For anti-inflammatory activity, Wistar rats were divided into four groups of four rats. The extract was administered orally with doses (100 and 200 mg/ kg b.w) and indomethacin (50 mg / kg) then the Carrageenan (2%) was injected intraperitoneally1 hour later.The protective effect of the extract was evaluated by measuring the number of leukocytes recruited into the peritoneal cavity.The pretreatment with the extract(100 and 200mg /kg b.w.) decreased significantly the number of leukocytes ($P \leq 0.05$) compared to the control group.

**Keywords:** Antiperitonitis activity, Umbilicus rupestris, Hepatopotective activity, Biochemical analysis

## FUNCTIONS AND GENERAL ISSUES OF TURKISH LANGUAGE TEACHERS' DEPARTMENT MEETINGS

*Tahir Gür*

In departmental meetings, teachers share their problems, opinions, and suggestions in various levels from an individual school to whole city schools. Usually it is seen as a routine legislation and an administrative duty for teachers in Turkey. In this study, the data obtained from the whole departmental meeting of Turkish language teachers in Nizip city analyzed by content analysis technique. The study included 57 teachers participated in the speeches and 236 complaints , comments , suggestions were identified m during the nearly 4 -hour discussion. After transcribing the meeting, data analyzed with content analysis technique. Being in a disadvantaged area , low socio-economic level , migration, low motivation, high absenteeism, undisciplined student behaviours are main problems among many teachers, students. Additional problems such as insufficient resources , more workload , insufficient in-service training , poor coordination , unsuitable curricula for local level education were also mentioned. Teachers have brought suggestions that could be solution to these problems. Whole departmental meeting found beneficial by teachers if it controlled and has opportunity to share ideas in a supportive environment. By the way this kind of meeting fullfills its goals and funtions well.

**Keywords:** Turkish teacher, Departmental meeting, Disadvantaged regions

## METAPHORICAL PERCEPTIONS OF TURKISH EFL STUDENTS IN RELATION TO THEIR SCHOOLS: THE SAMPLE OF KAFKAS UNIVERSITY

*Gencer Elkiliç*

It is a fact that metaphors play a very important role not only in linguistics but in education domain as well. Therefore, various studies dwell on the usages of metaphors both in daily routine lives of human beings and in school environment. Accordingly, this study examines the metaphors Turkish EFL students at Kafkas University chose to describe their school environments. The study group of this research consisted of 160 randomly selected EFL students who were attending to school regularly during the fall season of the 2015-2016 academic year. In the study, metaphorical categories were obtained and also it was investigated whether there was a significant difference between the metaphors categories in relation to the ages, genders and levels of the students. Data collection of the study was performed through forms containing prompts as " the schools are like .....; because ....." and during the analysis and interpretation process, organization, categorization, and metaphor sampling were used. For the data analysis SPSS 20 was used. And the findings and the data analysis have been given the study in detail.

**Keywords:** Kafkas University, EFL students, Schools, Metaphor, Age, Gender

## SUPERVISIOR TEACHERS WORKPLACE INCIVILITY BEHAVIOURS DURING OBSERVED BY THEIR TEACHER CANDIDATE STUDENTS

*Atila Yildirim, Abdullah Sürücü, Ali Ünal*

Incivil behaviours are characteristically rude and discourteous, displaying a lack of regard for others. In workplace incivility, employees conciously violate the rules of the organization, which, in turn, has the potential to negatively affect the organization itself, its members, or both. Common incivil behaviours are as follows: taking credit for other's efforts, passing blame for one's own mistakes, checking e-mail or texting during meetings, talking down to others, not listening, belittling others, withholding information, paying little attention or showing little interest in others' opinions, making demeaning or derogatory remarks to someone and avoiding someone (Porath and Pearson, 2010), writing nasty and demeaning notes or emails, treating another like a child, berating one for an action in which he or she played no part, giving people the silent treatment, publicly reprimanding someone, making unfounded accusations, and spreading gossip. The aim of this study is the school experience and teaching practice course for the education faculty students assigned supervisors in schools to identify organizational behavior incivility. Measuring tool developed by Yıldırım, Unal and Surucu (2013) a School Incivility Scale (SIS) that measures the prevalence of uncivil behaviours at schools. It was used. The scale had a three-dimensional structure consisting of trivialization, snubbing, and privacy invasion. The study sample studying Necmettin Erbakan University Faculty of Education, is the final year for students attending schools for school experience and teaching practice.

**Keywords:** Incivility, Teacher candidate, Supervisior teacher

## THE EFFECTIVENESS OF EDUCATIONAL DRAMA METHOD IN TEACHING HEAD OF HOURS IN FIRST GRADE PRIMARY SCHOOL

*Ahmet Çebi, Esra Ay Karaçuha*

Primary school first grade students who face problems about reading and writing and also they face some problems about teaching activities of number concept. One of the problem is about the learning of head of hours. The searching of either the abstract number consept can be durable acqusition for teaching the head of hour in demonstration method based on fairy tale subjects or educational drama method based on fairy tale subjects are more effective is the problem of this study. Either the fairy tale subjects based on demonstration method or based on fairy tale subject educational drama method is more effective to convert the head of hour is putting forth for primary first grade students by the way of experimental-controllable groups, designed before test-after test research.

**Keywords:** Primary school students, Educational drama method

## THE EFFECTIVENESS OF PHYSICAL EDUCATION TECHNOLOGY (PHET) INTERACTIVE SIMULATIONS IN ENHANCING MATRICULATION STUDENTS' UNDERSTANDING OF CHEMICAL EQUILIBRIUM AND REMEDIATING THEIR MISCONCEPTIONS

*Sheila Shamuganathan, Sumathi Ganasen*

In this study, the effectiveness of physical education technology (PhET) interactive simulations in enhancing matriculation students understanding and remediating misconceptions in chemical equilibrium concepts was investigated. For this purpose, the quantitative Chemical Equilibrium Diagnostic Instrument (CEDI) were employed. The test consisted of 11 two-tier multiple-choice items that were administered as a pre test and a post test to 104 matriculation students in two intact classes of the same college. One of the classes was randomly assigned as the treatment group (n = 52) which was instructed using PhET and the other class was assigned as the comparison group (n = 52) which was instructed using traditionally designed chemistry instruction. An independent samples t-test was used to determine the treatment effects on students' conceptual understanding. The analysis of the results showed a statistically significant difference between the post test mean scores in favour of the treatment group after instruction (Mtre = 13.85; SDtre = 4.35; Mcom = 10.62; SDcom = 3.99; t = 3.947, df = 102, p < 0.0001). The results of this study indicated that the students in the treatment group showed significantly greater levels of achievement than the comparison group students. In addition, the percentage of students' misconceptions decreased in both groups but the experimental group performed better than comparison group students.

**Keywords:** Chemical equilibrium, PhET Instruction, Misconceptions, Matriculation students

## VOLATILE DATA ANALYSIS AND METHODS IN COMPUTER FORENSIC

*Ahmet Ali Süzen, Kubilay Taşdelen, Ecir Uğur Küçüksille*

With the rapid technological advancement, from banking business to education so many transactions have been transmitting to the internet environment. Accordingly, an important increase rate of cybercrimes have been observed. Apart from examining the image of hard drive of computer in solving cybercrimes, examining the image of ram is also deadly important. In the study, getting RAM image and volatile data analysis methods have been researched in solving cybercrimes. Therewithal, getting images and volatile data analysis tools, trading and no trading have been technically compared among themselves.

**Keywords:** Computer forensic, Volatile data, RAM

## 'COMPLEXABILITY' NOT EMPLOYABILITY – CO-PRODUCING A MEANINGFUL PHILOSOPHY FOR EDUCATION AND WORK WITHIN DIVERSE AND GLOBAL GRADUATE CAREERS

*Rachel Higdon*

'Complexability' (Higdon 2014) better describes what graduates need to develop for global work. This research promotes Creatour, a contemporary philosophy for creative work and life. Adapted from Parkour, it is a philosophy about discovering individual paths, overcoming challenges and developing resilience. Creatour is collaborative and co-produced with undergraduates, graduates and others, such as employers or practitioners. Creatour encourages participants to view learning and work in a holistic way both at

university and after. The creative philosophy encourages students to regularly work in different ways, groups, spaces and places. It gives opportunities to participate within complexity, to work on real problems, to practise, to experience and to learn to do. It encourages people to work creatively across epistemologies and view problems imaginatively. By taking different perspectives, alternative solutions maybe seen that are more appropriate, inclusive and significant. Creatour was evaluated as being relevant to other disciplines as a meaningful approach to work.

**Keywords:** Graduates, British universities, Undergraduate degrees, Work, Creative education

## 21ST CENTURY'S DEVELOPING TECHNOLOGY: "INFORMATION COMMUNICATION TECHNOLOGIES" AND "CYBER SECURITY"

*Ali Karaduman, Uğurcan Atasoy, Arif Sari*

The portion of importance of 21st Century's Information Communication Technologies (ICT) cannot be ignored due the variety of flexibility and advantages provided to human life. In addition to this, the use of this technology play serious role in formation of government services which led countries to focus on these investments for this sector. In this research, variety of ICT investments from different developed and developing countries from different parts of the world investigated numerically and details about the positive and negative impacts of these investments are exposed. In addition to this, due to rise of "Information Security" concern among the organizations and governmental states, the in-depth analysis is conducted to expose possible impact of country's based cyber-security investments for developed and developing countries.

**Keywords:** Information and communication technologies, Economics, Information security, Cyber-security, investments

## A COMPACT REFERENCE ON THE APPLICATIONS OF BESSEL'S FUNCTIONS ON THE RADIAL FREE VIBRATION OF THICK-WALLED ANNULAR STRUCTURES CONSIDERING DIFFERENT BOUNDARY CONDITIONS

*Vebil Yildirim, Cem Boga*

The present work is related to the implementation of Bessel's functions into the radial free vibration of thick-walled axisymmetric annular structures made of an isotropic and homogeneous material. The aim of this study is to offer a compact source for this kind of engineering application to students, designers, engineers and scholars for different uses. This paper will provide a better understanding the radial free vibration of this types of structures at the same instant without causing confusion. To achieve this, firstly, the linear elastic one-dimensional field equations of the problem of annular structures made of isotropic and homogeneous materials such as uniform disks, infinite cylinders and spheres are presented by using the same notation. Secondly, the governing equation is derived from the equation of motion, compatibility equations and the stress-strain relationships. Thirdly, assuming the harmonic vibrations, the governing equation derived is put in the form of a general Bessel's differential equation. Finally, frequency equations are obtained for each type of structure and each type of boundary conditions, and presented in the simplest closed-form. The first ten dimensionless natural frequencies are computed numerically and determinant-frequency graphs are presented. The current results are also compared with the results in the

available literature. This study may be extended readily to the free vibration of such structures made of radially functionally graded materials with the simple power grading rule and under constant-density assumption. These compact frequency equations may also be used directly to computer-aided visualization of this engineering problem for educational aims or in the expression of the eigen-value problems as an example.

**Keywords:** Exact solution, Annular structures, Radial free vibration, Mixed boundary conditions

## A COMPARATIVE STUDY OF TWO EFL WHILE-LISTENING TECHNIQUES

*Sezen Balaban, Zeynep Çamlibel-acar*

In foreign or second language learning contexts, listening is often considered an essential yet undermined skill (Bidabadi, 2011; Scarcella & Oxford, 1992). In order to emphasize and increase the effectiveness of this 'least-wondered skill', innovative tools need to be researched. To this end, this study has aimed at investigating the use of two distinct while-listening techniques in English as a foreign language (EFL) lessons, namely 'shadowing' and 'note-taking'. The major focus was to analyse the impact of these techniques on learners' listening comprehension ability and changes in their perceptions of listening lessons and their own listening abilities. Specifically, the following research questions were asked: 1) which of the two while-listening techniques, namely 'shadowing' and 'note-taking', improves learners' listening comprehension to a higher extent? and 2) how does each while-listening technique influence learners' perceptions of and attitudes towards listening in the foreign language? The research was conducted with two groups of pre-intermediate level English language preparatory class students at a state university in Turkey. Groups were randomly assigned to receive training on either 'shadowing' or 'note-taking' from the same instructor for six consecutive weeks. Quantitative data include the pre-and post-test results for listening, as well as scores of comprehension check questions asked at the end of each training session. In addition, learner reflections provide information on students' opinions and perspectives related with each technique. Quantitative findings indicate a significant difference between groups in terms of learners' listening scores, and qualitative findings reveal various themes in relation to the techniques. Detailed results with potential implications for researchers as well as language teachers will be shared with the audience.

**Keywords:** English language teaching, Listening comprehension, While-listening techniques, Shadowing, Note-taking

## A COMPARATIVE STUDY ON DIFFERENT SATURATION PULSE TYPES IN A STD-NMR EXPERIMENT FOR IBUPROFEN AND COX1 ENZYME MIXTURE

*Nil Ertekin Binbay, Berrin Ziyadanoğullari*

Ibuprofen is a well-known and widely used member of NSAID's (Non-Steroidal Anti-Inflammatory Drugs). The main mechanism of ibuprofen is suppressing synthesis of Prostaglandin by inhibition COX (Cyclooxygenase) enzymes. STD-NMR (Saturation Transfer Difference - Nuclear Magnetic Resonance) is a highly sophisticated novel technique which focuses binding relationship of a macromolecule (enzyme, protein etc.) and a small ligand under specific conditions. The technique consists selectively saturation of macro molecule and then observing ligand's peaks to determine whether it binds to macro molecule. If the

ligand binds, technique also can give some information about which proton groups of Ligand play more effective role in binding process. In STD-NMR, determining and calibrating of saturation pulse parameters (shape, duration, power etc.) for each experiment is one of the very important steps in experimental process and could cause dramatic effect on success of the experiment. In this study, two different saturation pulse shapes comparatively used in two identical STD-NMR experiments for determine which one is more effective for ibuprofen and COX1 mixture; first Gaussian pulse shape, and second Re-Burp pulse shape. Each pulse applied as 10 ms pulse trains for 4 second. Pulse powers applied at 54 db. Off resonance and on resonance frequencies are selected as 36 kHz and -200 Hz (90 ppm, -0,5 ppm). 20 mM ibuprofen stock solutions were prepared with solving ibuprofen in DMSO-d6. COX1 izoform from ram seminal vesicles were supplied in 80 mM pH 0.8 Tris-HCl, 0.1% Tween 20, and 300 µM diethyldithiocarbamate (DDC), and used as such. Then ibuprofen stock solution, COX1 Enzyme solution and Tris-HCl (pH 0.8) as buffer were mixed in a NMR tube. And then STD-NMR experiments are carried out in BRUKER AVANCE III 400 MHz spectrometer. It is shown that, re-burp pulse gives more intensive STD-NMR signal than Gaussian pulse shape under identical parameters and identical sample. So re-burp pulse shape causes more effective saturation. Results are in accordance with literature.

**Keywords:** STD-NMR , Ibuprofen, COX1 , Saturation

## A CONTENT ANALYSIS REGARDING THE USE OF ALTERNATIVE ASSESSMENT METHODS IN PRIMARY SCHOOL CURRICULUM

*Mehmet Demir*

Alternative assessment is an umbrella term for a variety of nontraditional assessment methods, including classroom-based, qualitative, informal performance assessment and authentic assessment (Lee, Park and Choi 2012). Alternative assessment can be described as “performance assessment”, “direct assessment” and “authentic assessment” (Worthen, 1993: Culbertson, 2000, p. 32 ). The concept of alternative assessment was developed as a consequence of teachers’ dissatisfaction with the lack of tools to show students’ actual improvement and strengths (Balliro, 1993). This study is conducted on alternative assessment and its application in Turkey’s elementary educational system because traditional assessment tools are primarily used across the country. Therefore, the aim of this of literature review is to highlight key findings in this research field; to illustrate gaps or shortcomings in the literature, and to further contribute to the body of research on alternative assessment. 34 studies was used on selected based on the following criteria for inclusion studies had to be: a) conducted in Turkey, b) related to alternative assessment, c) conducted between 2005 and 2014, d) reported via articles published in refereed journals, presentations in national and international symposia, conferences, master theses and dissertations, e) elementary school levels. Using narrative content analysis, 35 studies regarding alternative assessment were collected and analyzed. Multiple variables including: study method, participants, research area, research design, context of the study were extracted.

**Keywords:** Primary school, Alternative assessment, Content analysis

## A CRITICAL REFLECTIVE MODEL IN A COLLECTIVIST CULTURE: THE BENEFITS OF INTEGRATING MENTORING SUPPORT ALONG WITH 'LESSON STUDY' FOR NOVICE TEACHERS' PROFESSIONALISM IN INDONESIA

*Siti Nurul Hidayah, Noelene Weatherby-fell, Meeta Chatterjee Padmanabhan*

Indonesian government has implemented 'Lesson Study' program in many secondary schools since 2000s. Established in Japan, the program is a model of collegial action research for teacher professional development (Suratno, 2012). However, the program was perceived as time-consuming and raised issues about sustainability. Specifically, this program seemed to provide the same type of support for both in-service and novice teachers. This is problematic because novice teachers have different support needs. Therefore, reflective practice model was combined with the 'Lesson study' to strengthen the professional development program. Reflective practice alone is problematic for novice teachers. As indicated in some studies, Indonesia follows collectivist cultural principles in which a strong hierarchical social culture raises issues of inequality between senior and junior teachers. In this social relationship, the novice teachers may experience both apprehensive feelings in the reflective practices and frustration in their initial teaching socialisation. Consequently, this study is critical as it examines the benefits of mentoring support in the "Lesson Study" programme that employed a practical reflective model to support novice teachers' professionalism. This study was conducted in the "Sekolah Permata Hati" (a secondary school) in Indonesia. Preliminary findings identify positive outcomes of the novice teachers' professional development. Although, to some extent, novice teachers still experience cultural barriers, nearly all the novice teachers ultimately improve their teaching competencies to varying degrees. Using the critical reflective model, they can develop self-awareness about their teaching and manage their anxieties in practicing reflection with their senior colleagues.

**Keywords:** 'Lesson study', Mentoring, Mentor, Mentee, Reflection, Indonesia

## A DESIGN OF AN EXPERT SYSTEM BASED ON FIREFLY ALGORITHM FOR DIAGNOSIS OF BREAST CANCER

*Naciye Mülayim, Aysegul Alaybeyoglu*

There are many different types of cancer one of which is breast cancer. Great majority of breast cancer occurs in females over the age of 50. It is estimated in recent researches that there will be many new cases of female breast cancer and most of the people will die because of this disease. Accurately and timely diagnosis reduces the risk of morbidity and mortality of the breast cancer. At that point, an expert system based on artificial intelligent techniques helps physicians or other healthcare professionals for diagnosis of it. The aim of this study is to develop an expert system by using Firefly Algorithm (FA) that is metaheuristic algorithm based on flashing behaviour of fireflies. For the system implementations, C# (Visual Studio) programming language is used to generate an interface and breast-cancer-Wisconsin data which is in UCI Machine Learning Repository site and has 699 number of patients data(1992) is used to test accuracy of the system.

**Keywords:** Expert system, Breast cancer, Artificial intelligence

## A FUZZY LOGIC APPROACH FOR BORDER SECURITY

*Fatma Gunseli Yaşar, Aysegul Alaybeyoglu, Ali Özdemir, Kadriye Filiz Balbal*

Due to the international migration, countries tend to increase security measures. In this study, people approaching the border are detected using the video frames taken from cameras. The fuzzification of edge detection method is applied to the detection of people. The size of the danger is classified according to the number of people detected. This is achieved by using fuzzy logic techniques.

**Keywords:** Education, Dunn, Fuzzy logic

## A GROUP DECISION MAKING MODEL FOR DETERMINING UNDERGRADUATE ELECTIVE COURSES

*Billur Ecer Aktas, Ahmet Aktas*

Education is a process which continues in all areas of human life. Governments may determine various education stages for standardization. These stages are pre-school, primary, secondary and higher education in Turkey which is also application area of this study. Curriculums are determined by a central regulation in first 3 type education. But there is no standardization for higher education which is divided in 4 section as associate, bachelor\'s, master\'s and doctoral degree. Additionally, students who are educated in the same department may want to improve themselves in different areas. At this point, elective courses taken by students are getting significant. For example in Industrial Engineering, students may improve themselves in services, manufacturing and finance. Therefore determining elective courses to be taught is important in higher education institutions. While determining courses, several criteria such as course's convenience of present conditions, compliance of the current curriculum, communication between students and the instructor of the course, workload of academic personal, application potential of course, suitability of university software-hardware infrastructure should consider. Increasing of criteria quantity complicates to find optimal solution. In the scope of this study, group decision making and ANP (Analytic Network Process) which considers interaction between criteria is used in order to overcome difficulties of comparison of decision making criteria. As a result, elective courses of undergraduate is determined in Industrial Engineering.

**Keywords:** Group decision making, Elective course determination, Higher education

## A MATHEMATICAL MODEL FOR RESOURCE CONSTRAINED MIXED-MODEL ASSEMBLY LINE BALANCING

*Ismet Söylemez, Ahmet Doğan, Uğur Özcan*

Mixed-model assembly lines are widely used to improve the flexibility to adapt the changes in market demand. In such a production line, two or more products with similar production characteristics are produced on the same assembly line. Mixed-model assembly lines are seen as an integral part of Just-In-Time production system. In the studies on assembly lines, generally, resources such as operators or equipments are assumed to be homogenous and available without limits to assembly operations. However, in real life applications, the resources may heterogeneous in terms of time, cost or assembly

operations. Therefore, in an assembly line, the problem of assignment task to stations and the problem of assignments resources to tasks with respect to usage of special equipment or/and qualified operators to perform a task should be considered simultaneously. For this purpose, in this paper, the problem of balancing resource constrained mixed-model assembly lines is considered. A new mixed integer program is proposed to model and solve the problem. A numerical example is solved to validation of the proposed mixed integer programming model. The results of the run of the numerical example show the proposed model is valid, and it provides the decision maker(s) can examine numerous scenarios regarding various conditions.

**Keywords:** Assembly line balancing, Resource constraints, Mixed-model assembly lines, Mixed-integer program

## A MATHEMATICAL MODELLING APPROACH FOR EXAM TASK ASSIGNMENT PROBLEM CONSIDERING ASSISTANT PREFERENCES: A CASE STUDY

*Ukbe Usame Ucar, Selcuk Kursat Isleyen*

Exam task assignment problem is widely occurred at educational institutions in each examination period of education term. Solving this problem in each examination period without using a solution methodology can be hardly and time consuming. Although basic constraints are taken into account (such as the assistant should not be assigned different exams at the same time, assistant should not be assign to exam more than a certain value in a day) while preparing exam task schedule, personal situation of assistants are generally ignored. The aim of this paper is developing solution approach, which considers the assistants' preferences for exam task assignment problem. Therefore a mixed integer linear programming formulation is improved to solve the stated problem easily. The proposed model is applied on the Department of Industrial Engineering at Gazi University and the results are compared in terms of satisfaction level with previously formed exam scheduling.

**Keywords:** Exam scheduling problem, Mathematical modelling, Exam task assignment problem

## A MULTI-LEVEL ANALYSIS OF CROSS-NATIONAL DIFFERENCES IN SUBJECTIVE WELL-BEING: A COMPARISON OF 22 EUROPEAN COUNTRIES

*Rania Fuadovna Valeeva, Piet Bracke*

In this paper, we focus on cross-national differences in subjective well-being (SWB). For this purpose we integrated the insights of two sociological theories which focus on goals, constraints and behaviour. Based on this integrated notion we derived several hypotheses that specify the expected impact of social security policies on maximization of SWB, and on relationship between individual education and SWB. The hypotheses were tested using the data from the fourth wave of European Social Survey (2008), in a sample of 40.745 respondents from 22 European countries: Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, the Netherlands, Norway, Poland, Portugal, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, and the United Kingdom. SWB was measured using two indicators: respondents' reports on their life satisfaction and happiness. Individual education was measured on the basis of years of full-time formal schooling. We used a country's welfare state (WS) type to measure the social security policies of each country. The survey data was analysed

employing hierarchical multilevel modelling. Our results indicate that analysis of the cross-national data using hierarchical multi-level modelling have unpacked the combined impact of individual education and social security policies on maximization of people's SWB. This paper indicates that a comprehensive approach provides more insights in cross-national SWB differences.

**Keywords:** Subjective well-being, Individual education, European social survey, Multilevel analysis

## A MULTI-OBJECTIVE DECISION MAKING MODEL FOR CLASS SELECTION PROBLEM: A CASE STUDY

*Murat Şahin, Talip Kellegöz, Serhan Kökhan*

Educational institutions generally present a timetable to students in which the scheduling of courses and classes have been arranged before. Generating an appropriate timetable in which all classes do not conflict each other is quite difficult. Students use this timetable to choose the courses and classes according to their requirements. A selected course class may be conflict with another selected one in timetable. Therefore, students are generally forced in selecting the classes without course conflict or minimum and acceptable course conflict. In this study a computer aided system for engineering students of Industrial Engineering Department at Gazi University is proposed to define the classes for selected courses. The system takes the courses from users and presents them appropriate classes by using a mathematical model in background. The aims of the mathematical model are minimizing the course conflict, assigning student to classes desired by department and minimizing total days in which the student take courses. Consequently, an easy way is proposed to students in selecting course classes by improving a multi-objective decision making model and a case study is applied.

**Keywords:** Student sectioning problem, Decision making model, Individual student schedule

## A MULTIPLE CRITERIA DECISION MAKING MODEL PROPOSAL FOR SUPERVISOR SELECTION OF POSTGRADUATE EDUCATION STUDENTS

*Ahmet Aktas, Billur Ecer Aktas, Mehmet Kabak*

Postgraduate education is a kind of education that taken by people who have undergraduate degree and want to train themselves in a specific research area of their interest. Therefore, postgraduate students need a supervisor to learn how to do scientific research and to guide their study. At this point, the problem of determining postgraduate education supervisor arises. As it seems to be better to have a supervisor with good communication skills for some students, it may cause some problems while getting academic support of supervisor. On the other hand, a supervisor with a good academic knowledge, can lead low efficiency in the execution study because of bad communication skills. So, postgraduate supervisor selection is a significant problem for students and consists multiple criteria. In this study, the criteria that influence the selection of postgraduate supervisor are investigated. 30 students of Industrial Engineering Department of Gazi University are asked to assess the criteria of supervisor selection problem. Because of the nature of human being, it is thought that there are some interactions between supervisor selection criteria and these criteria prioritized by using Analytic Network Process, which is a method for multiple criteria decision making. It will be possible to determine the appropriate supervisor for postgraduate students by using the priority values of criteria and the criteria values of faculty members.

**Keywords:** Multiple criteria decision making, Postgraduate education, Supervisor selection

## A NEW APPROACH TO VOICE STEGANOGRAPHY IN A COVER IMAGE

*Ali Dursun, Mehmet Burak Koca, Ilknur Çetin*

In this work, two new steganography methods which encrypt the voice in a cover image are developed. The algorithms are developed in the work are Near Valued Byte (NWB) and Total Value Equalization (TWE). The basic approach of the design is to realize a possible highest undetectable and possible lowest bandwidth. NWB and TWE are validated with experimental works and compared in themselves. It is clearly shown that they can be used as steganography methods.

**Keywords:** NWB, TWE, Steganograhy, Watermarking, Encryption, LSB

## A NEW NEIGHBOURHOOD SELECTION METHOD FOR COLLABORATIVE FILTERING RECOMMENDER SYSTEMS

*Emre Yalçin*

Improvements with the internet technologies, recommender systems have been used in many areas. Recommender systems recommends the appropriate items with the respect of users' past choices and features without any efforts of users. As the result of many researches and studies at last years, recommender systems have been used in many areas. Generally, users make decision with the help of these recommendations. The systems make recommends with the help of user's own past preferences and similar user's past preferences. Recommender systems approaches are Collaborative Filtering, Content-Based Filtering and Hybrid Filtering. Collaborative filtering systems compute the similarity between active user and other users with the help of user-item matrix. Then, the most similar users to the active user are determined and making predictions with using the these neighbors' preferences. These predictions' accuracy is depend on the consistence of users' past preferences. If the users behave inconsistence when sharing opinions for items, it effects negatively to predictions' accuracy. For this aim, the effects of exacting user's like is not same importance with the effects of easy liked user's like. Exacting user's like is more valuable for the system. Similarly, easy liked user's dislike have more negative effect than exacting user's dislike. For this purpose, in this research, users' preferences for items at the past which are examined the distribution and consistency of votes. Thus, with the help of applied method, the user-item dataset are transformed a new dataset. In neighborhood selection stage of collaborative filtering, the neighbors are selected with using new transformed dataset and made predictions with using these neighbors. Finally,analyzed predictions and examined the accuracy.

**Keywords:** Recommender systems, Collaborative filtering, Neighbourhood selection

## A NEW PERSONNEL ASSIGNMENT DECISION SUPPORT SYSTEM AND APPLICATION FOR THE TURKISH GENERAL COMMAND OF THE GENDARMERIE

*Ilker Çiçek, Cevriye Gencer*

Personnel assignment is one of the most important problems affecting the success of the public organizations. This process is shaped in accordance with the specific needs of each organization. The Turkish General Command of the Gendarmerie, as a paramilitary police force, provides public security and order for people throughout 81 provinces and 930 districts, and over ten thousand personnel are assigned annually. Related to this human resources department has to deal with many attributes some of which contradict each other and meanwhile try to satisfy the needs and preferences of commands and personnel. The existing personnel assignment like in Armed Forces of many countries, was a one-sided process, mostly depending on detailers, with very little role of personnel. With this study a more efficient, applicable and sustainable decision support system is obtained for the personnel assignment process in General Command of the Gendarmerie that will yield considering preference of personnel. The decision support system was used in assignment process of over 11.000 personnel in 2015. A research on assigned personnel showed that over %80 of the assigned personnel was satisfied with their assignments. To show efficiency and applicability of the proposed model, same problem was solved with classical assignment algorithm. As a result of the study, along with the senior management /detailers expectations and organization needs were met and also a human intensive assignment process obtained.

**Keywords:** Decision support system, Personnel assignment, Hungarian method

## A RESEARCH FOR DETERMINING THE KNOWLEDGE LEVEL OF CONSUMERS ON GENETICALLY MODIFIED FOODS

*Ibrahim Alkara*

Nowadays genetic modification is generally used mostly in medicine and food sectors and in other several sectors. But yet, especially in the food sector discussions are still going on. Even though there are many scientists who are the experts of this technology around the world, still experience a discussion process which contains two different views. As one side defends the view that genetically modified foods' effects to environment and people's health are not known definitely in future, another group of defenders talk about the proved positive effects of genetically modified foods. In spite of all these arguments the land around the world where genetically modified foods are cultivated are increasing by day by. While genetically modified foods have been developing in the world economy rapidly, it can be seen from the previous researches that both producers and consumers have not got definite information about the genetically modified foods. Consumers information levels and preferences are have a great importance for the food sector which is very important for our country's economy One of our important sector. A survey was administered to 1,250 people determined by using a quota sampling method who lives in Eskişehir. Chi-square analysis was used to demonstrate the differentiation between the demographic variables such as gender, age, education, income level, marital status and information level. The results showed that there were significant differences between demographic variables.

**Keywords:** Genetically modified foods, Consumer knowledge levels, Consumer awareness

## A STUDY ON BRANDING STRATEGIES IN THE RETAIL CHAIN: THE PERCEPTION OF SUPERMARKETS' "BRAND" OF CONSUMERS ON THE BASIS "THE 4R APPROACH"

*Ali Arici, Mehpare Tokay Argan*

The concept and phenomenon of interest of consumers for the brands is today's mass important shopping reality. Brands were evaluated by the 4R approach of Lindstrom with "reality", "relevance", "ritual" and "romance" dimensions. The 4R approach of Lindstrom aims to assess the evaluate of brands. Scoring in four dimensions being tested in the eyes of the consumer's five senses. With the "sensory test authenticity" (Lindstrom, 2007) tested the perception of consumers' through retail chains. Prepared the scope of the research questionnaire, developed by sensory test of the authenticity Lindstrom Turkish translation tested by expert scholars in the field of with the provisions of the statement have been created. 5-point likert scale to ensure clarity of expression 25 prepared in the form of a pilot study conducted with 20 people and some phrases have been re-arranged. Sensory branding strategies in the market perception of the customers of the retailer to investigate the effect of customer satisfaction levels. The study in Eskisehir city centre were conducted with customers who are shopping in stores, Özdilek, Çağdaş, and Carrefour. Two hundred ninety-five questionnaires were subjected to analysis. The data package SPSS 21.0 program was used. The distributions of data were examined to reveal whether the data show a normal distribution, the value of skewness of the data 2 from the received values of kurtosis value of less than 7 was observed. All the statements of authenticity in a jar of sensory reliability (0.89) were determined. In the study ANOVA and t test were used for reveal the factors (as elsewhere) is not that different. As a result of the analysis of gender; age; monthly income; education; shopping and shopping at the grocery store, there were statistically significant differences according to the market. The regression model was found to be significant and the impact of these dimensions on satisfaction was found to be 41.3 percent. With the study observed that the supermarket chain has been located different in the perception of consumers.

**Keywords:** Retail chains, Brand, 4R Approach, Lindstrom

## A STUDY ON DEVELOPING OF SCALE ABOUT SCIENTIFIC KNOWLEDGE FOR PRE-SERVICE TEACHERS

*Mustafa Metin, Şeyma Ulukök Yildirim*

The aim of study is to develop a scale to Pre-service teachers' view about scientific knowledge. In order to develop a scale, the study was conducted with a sample of 183 Pre-service teachers' different department such as Primary, Science and pre-school Teacher Education. The study consists of literature review, item pool, experts' opinions, administration of scale and computing the reliability and validity. While constituting the pool of items, so many scales towards students, pre-service teachers and teachers' view about scientific knowledge were examined in order to determine the statements of the scale and how to develop a scale by researches. Besides, fifteen pre-service teachers in different department were carried out interview regarding scientific knowledge features. After review of literature and interview, the draft scale consists of 56 items was developed. These items were edited to 52 by the opinion of the experts and the five point likert type draft such as "strongly disagree", "disagree", "undecided", "agree" and "strongly agree". Final draft of the scale with 50 items was administered to 183 pre-service teachers for calculating validity (particularly construct validity) and reliability of the attitude scale. The data collected from pre-service teachers were analyzed by means of factor analysis and reliability analysis through the use of SPSS. Firstly, an assessment of the normality of data is used shapiro-wilk test. According to result, the scale has normal distribution ($p>0.05$). Secondly for the validity of the scale, the data were subjected to factor analysis with principle component method in order to examine the factor structure behind the scale. After scale was administered to pre-service teachers, the suitability of the current data for factor analysis was

checked with the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Barlett's test. KMO values of .60 or above are acceptable. In this scale, the KMO value of the initial analysis was 0.79.The Bartlett's Test of Sphericity reached a significant value supporting the factorability of the correlation matrix obtained from the items [Approx. Chi-Square: 1835.93 (p< 0.01)]. According to results Barlett's test of Spherincity statistic was significant. After determining this result, the principal components factor analysis was followed by varimax rotation (rotated component matrix). I thought that the variance explained by one factor that would be independent of the variance in the other factors. The exploratory factor analysis was administered the 48 items. The Principle components factor analysis was used for all the data in order to extract the appropriate number of factors. The initial solution revealed that four factors had an eigenvalue greater than1.These factors altogether explained 45.78% of variance of results. Overall, factors were represented just by one item per each factor with loading higher than 0.4. Thus remaining one factor was considered not interpretable. Ten items were deleted because their factor loadings were lower than 0.4). Ten out of 42 items were deleted and the factor analysis for rotation was run again over the data set with 32 items. Then, Varimax rotation was used. After using varimax rotation, the factor loadings for each item were examined. Loadings of less than 0.40, a commonly-used cut-off, were eliminated. Thus, the factor analysis resulted in four independent factors with factor loadings greater than 0.4. The factor loading of items in the scale changes between 0.413 and 0.726. This situation indicated that 32 of item are enough qualified in the scale. Finally, reliability analysis was performed for each of the emerged sub-scales and Cronbach alpha correlation coefficients were used. Then, Cronbach alpha correlation coefficients were calculated among these factors. It was determined that Cronbach alpha value of the four factors between 0.75 and 0.80. Also, it was found that Cronbach alpha value of total scale is 0.79. According to these results, it can be said that the scale about scientific knowledge is a valuable and reliable scale.

**Keywords:** Pre-service teacher, Scientific knowledge

## A STUDY ON THEORETICAL AND EXPERIMENTICAL SPECTROSCOPIC PROPERTIES OF 3-CYCLOPROPYL-4-(3-ACETOXYBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE

*Haydar Yüksek, Özlem Gürsoy Kol, Sevda Manap, Murat Beytur*

In this paper, 3-cyclopropyl-4-(3-acetoxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one was synthesized by the reaction of 3-cyclopropyl-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-one with 3-acetoxy-benzaldehyde, which were synthesized by the reaction of 3-hydroxybenzaldehyde with acetic anhydride (Gürsoy-Kol, 2008). The molecule was optimized by using the B3LYP/6311G (d) and HF/6311G (d) basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). Afterwards, 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09W (Frisch et al., 2009). Experimental (Gürsoy-Kol, 2008) and theoretical values were inserted into the graphic according to equitation of δ exp=a+b. δ calc. The standard error values were found via SigmaPlot program with regression coefficient of a and b constants. IR absorption frequencies of analyzed molecule were calculated by two methods. Then, they were compared with experimental data, which are shown to be accurate. Infrared spectrum was composed by using the data obtained from both methods. The veda4f program, was used in defining IR data, which were calculated theoretically (Jamróz, 2004). Furthermore, molecule's theoretical bond lengths, UV-Vis values, dipole moments, formal charges, HOMO-LUMO energies, total energy of the molecule, ionization potential, electron affinity and electronegativity for both methods were calculated.

**Keywords:** 4,5-dihydro-1H-1,2,4-triazol-5-one, Theoretical, Isotropic shift values, Gaussian G09W

## A STUDY ON THEORETICAL AND EXPERIMENTICAL SPECTROSCOPIC PROPERTIES OF 3-METHYL-4-[3-(P-NITROBENZOXY)-BENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE COMPOUND

*Özlem Gürsoy Kol, Haydar Yüksek, Fevzi Aytemiz, Murat Beytur*

In this study, 3-methyl-4-[3-(p-nitrobenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one (Gürsoy-Kol & Yüksek, 2010) was optimized by using the B3LYP/6311G (d,p) and HF/6311G (d,p) basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). Starting from this optimized structure with 1H-NMR and 13C-NMR spectral data values according to GIAO method was calculated using the method of Gaussian G09W program package in gas phase (Frisch et al., 2009). Theoretically and experimentally (Gürsoy-Kol & Yüksek, 2010) values were plotted according to δ exp=a. δ calc.+ b, Eq. a and b constants regression coefficients with a standard error values were found using the Sigma Plot program. In the theoretical part of study also, calculated IR data of compound was calculated in gas phase by using of 631G(d) basis sets of B3LYP and HF methods and are multiplied with appropriate adjustment factors and the data obtained according to B3LYP and HF methods are formed using theoretical infrared spectrum. The identification of calculated IR data was used in veda4f program (Jamróz, 2004). Furthermore, molecule's theoretical bond lengths, UV-Vis values, dipole moments, formal charges, HOMO-LUMO energies, total energy of the molecule, ionization potential, electron affinity and electronegativity for both methods were calculated.

**Keywords:** 4,5-dihydro-1H-1,2,4-triazol-5-one, Theoretically, B3LYP and HF , HOMO-LUMO

## A STUDY ON TURKISH SCIENCE TEACHERS' PROFESSIONAL EFFICACY

*Ayşem Seda Önen, Canan Koçak Altundağ, Fatma Merve Ulusoy Mustafaoğlu*

Efficacy is a capacity that needs to be organized and directed in relation to various aims that has cognitive, social, emotional, and behavioral dimensions. Efficacy belief is not only about control over behavior but also about thought processes, motivation, and effective psychological situations. Teachers play the most important role in the education process as the people who plan, manage and evaluate it. Teachers with a strong sense of efficacy tend to exhibit greater levels of classroom management. In this study, the efficacy of physics, chemistry and biology teachers was investigated in terms of participants' demographic information (e.g. subject area, professional seniority, education, participation to in-service training or not…). In total, 1958 teachers, who are working at high schools of Turkish Ministry of National Education in different cities, from all aforementioned subject areas participated in the study. As data collection tool, "Ohio Teacher Efficacy Scale" was used, this scale was designed by Tschannen-Moran & Woolfolk-Hoy (2001) and adapted to Turkish by Baloğlu and Karadağ (2008). Aforementioned questionnaire is designed in 5 point-Likert type and consists of 24 items, and they are divided into 5 factors. Demographic information used in the study was formed by the participants. At the end of the study, it is found that there is correlation between the efficacy of the teachers and their demographic information, and the findings have been reported. It was also determined that teachers' efficacy is rather high. Moreover, it was seen that the more experience teachers have in their profession, the higher their perception of efficacy.

**Keywords:** Professional efficacy, Physics, Chemistry, Biology teachers, Science education

## A STUDY TO INVESTIGATE THE ENTREPRENEURIAL INTENTIONS OF HIGH SCHOOL STUDENTS IN FAMAGUSTA, NORTH CYPRUS

*Beste Sakalli*

Entrepreneurship is one of the key factors for the development of the economies and also creating job opportunities to overcome unemployment. Considering this, teaching entrepreneurship to high school pupils has a crucial role to increase their awareness of entrepreneurship. The present paper aims to investigate the entrepreneurial intentions of the high school pupils who haven't studied entrepnreneurship. The pupils from Famagusta, Northern Cyprus will be selected as a population of this research. In the end, the study is aimed to be a basis for the further academic researches about entrepreneurship education.

**Keywords:** Entrepreneurship, Entrepreneurial intentions, Entrepreneurship awareness, Entrepreneurship education

## A STUDY TOWARDS VIEWS OF CANDIDATE TEACHERS ABOUT GLOBAL AND NATIONAL ENVIRONMENTAL PROBLEMS

*Bülent Alagöz*

In this research, determination of primary school, social studies and mathematics candidate teachers' awareness and susceptibility levels about environmental problems, solution suggestions about these problems, activities used in environmental education and views about environmental education were targeted. Sample of this research comprised of 449 candidate teachers from Education of Nizip Faculty (Gaziantep University) and Education Faculty of Çukurova University. Research carried out in Fall Semester of 2015-2016 Education Year. The data collection tool was a questionnaire done by candidate teachers. In the data analysis, number, percentage, average and standard deviation as descriptive statistical methods were used. One way Anova test was used in comparison of quantitative continuity data between more than two independent samples. Scheffe test was used as subsidiary post-hoc analysis for determining differences after Anova test. Pearson correlation analysis was practiced between continuous variables of research. Analysis results showed that "social susceptibility" and "general susceptibility" level of the participants was high whereas "academic susceptibility" level of the participants was very high.

**Keywords:** Global and national environmental problems, Environmental education, Candidate teachers

## A SURVEY ON THE PERCEPTIONS ABOUT KNOWLEDGE LEVEL AND TEACHING SKILLS IN MATHEMATICS OF THE STUDENTS IN THE FINAL YEAR OF A DEPARTMENT OF EDUCATION OF A GREEK UNIVERSITY THAT COMES FROM THEORETICAL ORIENTATION

*Evgenios Avgerinos, Athanasios Karageorgiadis*

In the Greek secondary education system, students must choose one of the three orientations in the second class of high school. These orientations are mainly the theoretical direction, the positive science direction and the technological direction. The aim of the orientations is to prepare the student for the nationwide university entrance examination in which they will participate next year. Depending on the

orientation that the student will choose, they will be examined to the six corresponding courses. Students who are chosen to enter at the humanities faculties, and more specifically at the Departments of Primary Education, come overwhelmingly from the theoretical orientation, in which the subject of Mathematics is not one of the examined topics. Thus, the following phenomenon is created: students who enter the Department of Primary Education have large knowledge gaps and misunderstandings in Mathematics, although the subject of Mathematics is among the core main courses in primary schools. This phenomenon is getting even more intensified by the fact that the students have false perceptions about their knowledge level in Mathematics, thinking it is sufficient and they are not willing to work hard in order to fill their knowledge gaps and misunderstandings. This paper presents the results from the survey of the students in the final year in the Department of Primary Education of one of the Greek Universities, about their perception of their knowledge level in the Mathematics context, and the effort they are willing to make in order to fill their knowledge gaps they may have. Also presents the results of their assessment about the real level of their knowledge and their teaching skills in Mathematics.

**Keywords:** Survey, Student, Perceptions, Teaching skills, Mathematics

## A THEORETICAL STUDY OF STRUCTURAL, ELECTRONIC AND STABILITIES PROPERTIES OF PBX (X= SI, GE AND SN)

*Yacine Chibane, Soraya Bachaoui*

An investigation on structural, electronic and stabilities properties of PbX (X=Si, Ge and Sn) in the zinc-blende structure has been conducted using first principles calculations (ab initio) based on density functional theory (DFT). For the structural, electronic, mechanical and thermodynamic properties we have used the full potential linear augmented plane-wave (FP-LAPW) method as implemented in the WIEN2K code. To calculate the dynamical properties we have used plane wave pseudopotential (PW-PP) methods as implemented in the ESSPRESSO code. The exchange and correlation effects were treated using the generalized gradient approximation (GGA). Fully relativistic approximation is used for core electrons, and scalar relativistic approximation is used for valence electrons. Spin-orbit coupling is included. The calculated lattice constants are in good agreement with the available experimental results and the previous theoretical works. The band types and other properties for all materials are correctly estimated. All binary alloys predicted to be stable mechanically and unstable dynamically with respect to their elemental components at zero pressure and temperature.

**Keywords:** DFT, FP-LAPW, PW-PP, WIEN2K code, Espresso code

## A THEORETICAL STUDY ON THE MATHEMATICAL CONNECTION

*Kemal Özgen*

Today, it is emphasized that connection is one of the most important processes of learning and doing mathematics. It has been seen that connection is handled in standards and curriculum which is related mathematics learning process at national and international level. Connection is situated between mathematics learning standards pre-school to university level students. In this regard, it can say that there is a growing interest towards mathematical connection in recent years. In this context, the question of what is the connection is important. Moreover, why the connection is important for learning mathematics

process? The purpose of this process can be seen as intriguing question that was going on. There are also issues that need to be considered that what is the reflection of mathematical connection on our country mathematics curriculum? It should be examined what is the type and categorization of mathematical connection. All of these questions are important issues for learning mathematics processes. In this study, literature and studies related mathematical connection have been investigated with a critical approach. Mathematical connection generally described in three categories. These are connection between mathematics and real world, between other disciplines and within mathematics. In this study, it has been accepted that these three types of mathematical connection. In addition, it has been explained this theoretical framework. In this study, it has been supported concrete problems and activities at different level and content towards mathematical connection theoretical framework.

**Keywords:** Mathematics, Connection, Learning

## ABUTMENT STRUCTURE DESIGN BY GEO 5 SOFTWARE PROGRAM

*Burak Görgün, Nazile Ural*

Retanining wall is used for resistance against soil pressure and the safety of building environment. Soil to prevent slipping is applied lateral thrust to the retaining structure, and this thrust is triying sliding and topple. In this study, using soil parameters of a slope; Cantilever retaining walls calculation is made. Retaining walls calculation made empirical methods and GEO5 programs, and the results obtained by these two methods were compared.

**Keywords:** Retaining wall, GEO5 program, Static and Dynamic Analysis

## ACCESS TO USER ACCOUNTS THROUGH RAM IMAGE FOR COMPUTER FORENSICS

*Ahmet Ali Süzen, Kubilay Taşdelen, Ecir Uğur Küçüksille*

Computer Forensics; information systems to collect information from the smallest details to be presented as evidence to present in court, including multi-disciplinary investigation and preservation process is a new branch of science. All technical studies and analyzes carried out for forensic evidence are performed on the image of the event. In this study, the computer that the image is made with data analysis techniques on images taken in real time through RAM's web user accounts (Youtube, Facebook, Google+, Gmail, Twitter) access is provided on Windows.

**Keywords:** Computer forensic, Volatile data, RAM, User accounts

## ACIDIC PROPERTIES OF SOME 3-ALKYL(ARYL)-4-[2-(4-NITROBENZOXY)-3-ETHOXY-BENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

*Haydar Yüksek, Faruk Kardaş*

It is known that 4,5-dihydro-1H-1,2,4-triazol-5-one ring has weak acidic properties, so some 4,5-dihydro-1H-1,2,4-triazol-5-one derivatives were titrated potentiometrically with tetrabutylammonium hydroxide in non-aqueous solvents, and the pKa values of the compounds were determined (Yüksek et al., 1997; Bahçeci et al., 2002; Bahçeci, Yüksek, Ocak, Köksal, & Özdemir, 2002). In the present study, nine 3-alkyl(aryl)-4-[2-(4-nitrobenzoxy)-3-ethoxy-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-ones (3) were synthesized from the reactions of 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with 2-(4-nitrobenzoxy)-3-ethoxy-benzaldehyde (2) (Yüksek, Kardaş, Gürsoy Kol & Albayrak, 2015). To investigate the effects of solvents and molecular structure upon acidity (Yüksek et al., 1997; Bahçeci et al., 2002; Gündüz, 1988) the 3 type compounds were titrated potentiometrically with tetrabutylammonium hydroxide in four non-aqueous solvents (acetone, isopropyl alcohol, tert-butyl alcohol and N,N-dimethylformamide). The half-neutralization potential values and the corresponding pKa values were determined for all cases.

**Keywords:** Acidic properties, pKa, Non-aqueous solvents, 4,5-dihydro-1H-1,2,4-triazol-5-one

## ADDRESSING RACISM FROM CLASSROOM TEACHING

*Shirin Housee*

As an educationalist, I see my job as a teacher in the classroom to help students to challenge racism and to encourage changed thinking. I ague that our students should be directed to ant- racist, anti-sexist, indeed against all sorts of oppressive ideas. I ask in this paper, “what can educationalists do to undo racism that emerges from teaching and learning moments? This paper offers examples of teaching exchanges from classroom teaching that explores ways of teaching against racism. It underlines the importance of anti-racism as it emerges organically within classroom engagement and exchange. This paper refers to student dialogues and counter-dialogues that emerge from class discussions. It suggests that classroom exchanges can help provoke students’ critical thought and self-reflection. I argue that students’ contributions in class should be used as anti-racist insights. Student experiences should be seen as one of the tools with which to explore the race debate as it arises in our classes. Seeing student experience as ‘knowledge’ is important in the making of an anti-racist pedagogy. I argue that when students interject with their worldview, when they question the dominant views, they are engaging in ‘counter hegemony’. As Nieto (1999:104) says, Critical Pedagogy begins where students are at; it is based on using students’ present reality as a foundation for further learning rather than belittling what they know and who they are. I conclude that engaged dialogue can offer powerful tools for bringing out the ‘racisms’ in a classroom context. It is by engaging in this process of ‘sharing the lived racism’, the class is able to raise the critique of anti-racism.

**Keywords:** Anti-racism, Critical pedagogy , Anti muslim racsm/Islamophobia

## ALTERNATIVE IDEAS FOR SOME BASIC CONCEPTS OF SCIENCE TEACHER CANDIDATES BEFORE ASTRONOMY COURSE

*Hafife Bozdemir, Ebru Ezberci Çevik, Sevcan Candan, Mehmet Altan Kurnaz*

Astronomy as a subject area that exists every educational level. Astronomy topics, began to be taught after Tanzimat (MEB, 2010). At the level of primary education it is taught specially science education and social studies education (MEB, 2009; MEB, 2013). As well as in secondary education it is taught as a compulsory (Physics on some topics) and elective (Astronomy and Space Sciences) courses (MEB, 2010). At the level of undergraduate, some astronomy topics in Physics I and Geosciences. The purpose of research is to determine knowledge of science teacher candidates and also their alternative ideas in this context. The study was carried out 87 science teacher candidate who were studying in science teaching department of a university in the Western Black Sea Region. Astronomy Concept Test was used as data collection tool which was developed by Bektasli (2013). The instrument is composed of 18 multiple-choice questions. In addition participants asked to state if they were sure or not sure of their answers at the end of each question. Descriptive method was used to analyze the data. Analysis was performed for each question, and percent and frequency tables were created for them. Alternative ideas were evaluated about the concepts/topics of stars, constellations, planets, the Sun, Earth, Moon's movement, the formation of the seasons corresponding to these questions. In this research, it was identified that many alternative ideas of preservice science teacher candidates about the investigated concepts/topics. Students marked the answer that they thought it was scientifically accurate. It was found that usually they were not sure. It is suggested that the alternative ideas of teacher candidates can be changed as scientific knowledge. And also, based on the results of the study, suggestions for further studies have been developed.

**Keywords:** Science teacher candidates, Astronomy, Alternative ideas

## ALTERNATIVE SCHOOL CALENDARS: COULD THEY MAKE A DIFFERENCE?

*Osman Çil*

Academic standards and expectations for K-12 students have been increasing gradually every year and increasing technological and educational demands force students to master more complex knowledge and skills. These high achievement demands encourage administrators and policy makers to find solutions to increase student achievement, while managing cost-efficient administrative school systems. Thus, many of the researchers, educators, school leaders, and policy makers explore alternative approaches to increase instruction time and quality in a cost efficient manner. The main purpose of this academic poster is introducing alternative school calendars—extended school time; single- and multi-track year education—to increase student achievement. Also, positive and negative effects of these approaches will be discussed. Increasing school time provides more time for learning and completion of given tasks, creates opportunities for deeper understanding of content, provides opportunities to establish a deeper student-teacher relationship, and increase student achievement, while it could decrease students' time for extracurricular activities and result in student burnout or boredom. Similarly, increasing school time might create more instruction time for teachers and increase their salary; however, it decreases teachers' and administrators' free time, which in return might result in teacher and administrator burnout. Finally, use of alternative school calendars could help to reduce retention and learning loss by reducing and separating non-school time and educational costs since they provide opportunities using educational facilities through whole year without any break.

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**Keywords:** Increasing school time, Year round education, Single and multi-track education

## AN ALTERNATIVE HIGH ORDER LUCAS NUMBERS

*Bünyamin Şahin, Tarik Çelik, Inci Gültekin*

In chemistry the Merrifield- Simmons index is a famous topological index. We showed that the Merrifield-Simmons index of the 1-Methyl bicyclo alkanes [X,1,0] is equal Lucas numbers and after this we obtained the high order Lucas numbers to Merrifield- Simmons index and some equations.

**Keywords:** Merrifield-simmons index, Lucas numbers

## AN ANALYSIS OF THE TREATMENT OF EVOLUTION IN MOROCCAN SECONDARY TEXTBOOKS

*Boujemaa Agorram, Moncef Zaki, Sabah Selmaoui, Salah-eddine Khzami*

For almost of scientists , the concept of Evolution occupies a central position in Biology. A few years ago, the topic of evolution was introduced in secondary programs. The teaching of this topic still controversial and causes many resistances in Morocco. In this study, Biology textbooks were analyzed using the methods of content analysis. Results show that this topic is treated in the end of school programs and in most cases the teaching approach is characterized by superficial handling of key ideas. the treatment of evolution is too confusing and abstract, there are a few mistakes and misconceptions, the visuals are sometimes inadequate. Only equine evolution is studied. There is lack of reference to the Human evolution in the syllabus as well as in all analyzed textbooks .

**Keywords:** Evolution, Textbooks, Natural selection, Content analysis

## AN ANALYTIC APPROACH FOR ACADEMIC PERSONNEL SELECTION

*Billur Ecer Aktas*

Nowadays, universities are trying to cope with many problems. One of the most important problems is the selection of qualified academic personnel. Some expectations of universities from their academic personnel are to have a successful academic background, good knowledge level of foreign languages, academic publications in the related research area, good communication skills with students and other staff etc. However, most of these expectations are not considered for academic personnel selection in practice. Also, importance degrees of selection criteria are not determined by using an analytic approach. Hence, in the main scope of this study, a scientific approach is proposed for academic personnel selection problem to make better selection decisions. Selection criteria are determined by consultation with a group of academicians with different academic degrees and Analytic Network Process is used for prioritization of determined criteria. Applicability of the proposed selection approach is demonstrated with a case study of research assistant selection in a state university in Turkey.

**Keywords:** Research assistant selection, State university, Decision making, ANP

## AN ANALYTIC METHOD PROPOSAL TO DETERMINE ACADEMIC INCENTIVE PAYMENTS

*Ahmet Aktas, Billur Ecer Aktas, Mehmet Kabak*

In 2015, some regulations were made by Turkish Council of Higher Education to improve earnings of academicians. In addition to increase in the salaries of academicians, an incentive payment depending on the academic performance during the year is planned. It is indicated in the instruction which is published at the end of 2015, incentive payment is going to be made based on incentive score. Academic activities that effect incentive score are described and sub–activities of each activity and weights related to them are described within this instruction. It is clearly seen that some activities which have equal weights don't have same degree in realization. Moreover, some activities can make contribution to realize another activity. On the other hand, some critics are being made about the activities which are not taken into account in scoring. At this point, realization and scientific benefits of activities should be analysed to develop a new scoring scale. In the scope of this study, an analytic approach is proposed to determine the effects of academic activities on incentive score by considering interactions between activities and realization of activities. To consider interactions between activities, analytic network process, a multiple criteria decision making approach is used and a group of academician are asked to evaluate academic activities. The activity weights determined by academician group's opinion are used to formulate the new scoring system.

**Keywords:** Academic incentive payments, Analytic network process, Incentive score

## AN EMPATHIC INTENSIVE ENGAGEMENT WITH CHILDREN WITH SEVERE AUTISM IMPROVED THEIR ICT ATTAINMENT LEVELS

*Salima Y. Awad (Elzouki), Osama Tashani, Bridget Cooper*

This research investigated the role of computer-based animated characters to teach children with severe autism Facial Emotion Recognition (FER). The research was carried out over 13 months, with eight children, in a specialist school unit for children with severe autism, aged 6-10 years (7 males, 1 female). The assessment of the children's characteristics and abilities was used to establish individual performance levels (P-Levels) prior to any intervention taking place. P-Levels are used to describe attainment levels for pupils with Special Educational Needs (SENs) working below level 1 of the National Curriculum in England and Wales, and the subject specific P-levels were applied to English language skills (writing, reading, listening, speaking) and Information and Computer Technology (ICT). These P-levels acted as a baseline to assess how computer-based interventions affected the participating children's learning abilities. An empathic individualised ethnographic approach was adopted to observe and interact with each child, which involved the development of computer interventions based on each child's interests e.g. cartoons, singing, and drawings. Gradually, positive relationships were built and ultimately made an interestingly significant change in the behaviour and learning abilities of the children, enabling them to efficiently contribute to the valuable findings of the current study. The findings suggested that the behaviour and learning abilities, measured by P-levels, of children, under the umbrella of the Autistic Spectrum Disorder (ASD), are wide and varied, albeit with some similarities. A slight improvement in the children's FER was observed, combined with a positive change in their interaction with the researcher and progress in their ICT attainment, with the biggest pre-post change recorded for ICT P-levels ($p=0.026$, Chi square). The level of non-cooperation in the initial study reflected the challenges faced when teaching children with severe autism, however using interactive tools tailored to the individual interests of each child was shown to make the computer technology a more enjoyable, engaging and efficient teaching tool. Further, the extensive field work conducted during this research has yielded fascinating and intrinsically valuable and important insights into daily life in an educational unit for children with severe autism.

**Keywords:** Severe autism, Technology, p-levels, Empathy, Ethnography

## AN EVALUATION OF THE PERFORMANCE OF ENGINEERING DEPARTMENTS IN A TURKISH UNIVERSITY

*Uğur Özcan, Ismet Söylemez, Ahmet Doğan*

In educational institutions, performance efficiency of the departments should be reviewed within the context of continuous development and improvement activities. An effective performance evaluation system enables the use of resources in the most effective manner. One indication representing the development level of a country is the scientific knowledge. Engineering departments play a critical role in increasing the scientific knowledge of a country. So, in this study, a Multiple-Criteria Decision Making (MCDM) approach is proposed for the performance evaluation of the engineering departments in a Turkish University. The Analytical Hierarchy Process (AHP) is used to determine the relative criteria weights and The Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) method is applied to prioritize and rank those departments. The performance criteria considered in this study are student ratio (undergraduate, postgraduate and doctoral student), research publications, number of master theses and doctoral theses completed, academic staff and so on. The results obtained from this study, Decision Makers could see the performance efficiency of the engineering departments in an easier way and taking appropriate measures will provide continuous improvement within the scope of the development of this department.

**Keywords:** Engineering department, Technical education, MCDM, AHP, TOPSIS

## AN EXAMINATION OF HIGH SCHOOL STUDENTS' ACADEMIC MOTIVATION AND THEIR ATTITUDE TOWARDS CHEMISTRY LESSONS

*Canan Koçak Altundağ, Fatma Alkan*

Whether affective characteristics play a role in students' interests, preferences, social activities, their success or failure has been subject to many studies. There are scientifically-proven effects of course-related affective characteristics on learning at school. Students' attitudes is an important dependent variable especially in evaluating science courses. Academic motivation is a subject that should not be ignored especially in relation to science courses in which students have a hard time comprehending the subject. As such, this study aims to examine the effect of academic motivation of high school students on their attitude towards chemistry lessons. Study group of this study consists of 1091 high school students from various high schools in Turkey. As data gathering tool, Attitude Towards Chemistry Lessons Scale was used, this scale was designed by Cheung (2009) and adapted to Turkish by Şenocak (2011). Moreover, in order to get information about students' motivation, Academic Motivation Scale, which was developed by Bozanoğlu (2004), was used. According to the data obtained from the study, high school students' attitude towards chemistry lessons varies. As a result of the study, the analysis on the scores of students obtained from the Scale of Attitudes towards Chemistry showed that they had the positive attitude scores. Also, whether students' academic motivation differ was also examined. According to findings, it was seen that students have different motivations. It was determined that there is a meaningful relationship between students' attitude towards chemistry lessons and their academic motivation.

**Keywords:** Academic motivation, Attitude towards chemistry lessons, High school students, Science education

## AN EXPLORATION OF UNIVERSITY STUDENT'S UNDERSTANDING OF POPULATION GENETICS CONCEPTS

*Boujemaa Agorram, Sabah Selmaoui, Salah-eddine Khzami, Moncef Zaki*

This research examined university students's understanding about population genetics concepts and how they integrate those knowledge to explain the theorie of Evolution. A case study method was used to explore the students' understanding of differents factors that affect evolution. Data were collected by interview and were analyzed qualitatively. The results indicate that the majority of students know how can natural selection and mutation affect allele frequency in a population but they have difficulties to understand how act Genetic drift on the evolution of allele frequencies. They had also misconceptions of some concepts related to evolution like speciation.The majority of students don't believe to Human evolution but they accept the theory of evolution for the other species.

**Keywords:** Gentics population, Misconceptions, Evolution theory

## AN INVESTIGATION OF PRESCHOOL CHILDREN'S QUALIFICATION ON COGNITIVE, EMOTIONAL AND SELF-CARE SKILLS IN TERMS OF MOTHERS' EMPLOYMENT STATUS

*Sarem Özdemir, Seral Özturan*

The many skills (self-care, social-emotional, cognitive, etc.) of preschool children constitute a critical period for the development. The purpose of this study is to examine whether there is a differentiation between the children of working mothers and housewives in terms of their self-care, cognitive, and social-emotional skills. The research has been carried out used descriptive analysis. The study population comprised 5 years old children with working mothers and housewives who live in Nicosia in Turkish Republic of Northern Cyprus. Research data was collected in September 2015 and analyzed. The personal information form included the mother's education level, the scale, mother's age, number of children, mother's working status and questions about the occupation took place.

**Keywords:** Cognitive, Emotion, Preschool

## AN INVESTIGATION OF THE RELATIONSHIPS BETWEEN SECONDARY SCHOOL STUDENTS' MATHEMATICS ANXIETIES AND PARENTING STYLE PERCEIVE THROUGH CANONICAL CORRELATION ANALYSIS

*Eyup Yurt*

This study aimed to investigate the relationships between secondary school students' mathematics anxiety and parenting style perceive. The study was conducted on 201 secondary school students receiving education in different school in Gaziantep city center. 46 % of the students (n=92) were female whereas 54 % of them were male (n=109). 32.3 % of the students (n=65) were 6th graders, 49.3 % (n=99) were 7th graders and 18.4% (n=37) were 8th graders. Parents' Attitude Scale and Mathematics Anxiety Scale were used to collect the data. The data that were obtained were evaluated using the canonical correlation analysis. Only one of the calculated three canonical correlation was statistically significant. According to the results, it was understood that students with high perceptions of overprotective-requester and authoritative parenting, and low perception of democratic parenting style had more anxiety concerning mathematics in classes, examinations and daily life.

**Keywords:** Mathematics anxieties, Parenting styles, Middle school

## AN INVESTIGATION ON THE FIELD TERMINOLOGY KNOWLEDGE LEVEL OF STUDENTS STUDYING GRAPHIC IN FINE ARTS DEPARTMENTS

*Ahu Simla Değerli, Murat Aslan*

Art education has always taken its place in education process in every period of history. Art education comes with innovation efforts. These efforts are seen to yield results when the art educator and student follow the development and change in the world closely. In this process, higher education institutions which train art educators have a vital mission. The students graduating from these institutions have a chance to become teachers in their branches. Moreover, the students in the department of art teaching can start specialization from the second year in parallel with the courses they elect, and work in other fields. One of these specialties is graphic department. Graphic design is a visual communication art. Its first function is to convey a message or introduce a product or service. The problems of graphic design is always about communication. The designer has to convey the message to the target audience correctly and effectively. However, before conveying the message, the candidate graphic designer or the future art educator should master the graphic design terminology. Within this context, the starting point of our study is to what extent the students of graphic design department master the graphic terminology. The participants of the study is composed of third and fourth year students in Graphic Department, Fine Arts Education Division, Faculty of Education, Gazi University, who were determined using convenience sampling technique. A questionnaire consisting of 48 items was be applied to the participants. The questionnaire is composed of three parts. The first part consists of 11 items and aims at gathering demographic information. The second part consists of 14 items about the students' graphic design backgrounds. The third part has 23 items aiming at measuring the students' knowledge level about graphic design terminology. The basic terms in graphic education were determined by taking expert opinions and reviewing the literature. The data were analyzed and interpreted using descriptive analysis technique.

**Keywords:** Art education, Graphic, Terminology, Preservice teachers

## ANALYSIS OF NON-REFLECTIVE FIBER OPTIC CABLE FAULTS WITH KALMAN FILTER

*Hüseyin Acar, Mehmet Emin Tağluk*

The aim in this study is to detect the non-reflective faults (events) and the location of these defects in the fiber optic line. Day by day due to the increase in the usage of fiber optic cables in communication systems raises the importance of methods toward the fault detection in these cables. Synthetic and real data measured by OTDR (Optical Time Domain Reflectometer) from PtP (point-to-point) fiber optic line were analyzed with Linear Kalman Filter. Synthetic OTDR signals were simulated with Optisystem software used to design fiber optic communication systems, and the real signals were measured by OTDR device from 19.5 km long fiber optic line. To analyze OTDR signals with Kalman Filter, firstly, the linear model of fiber line that includes the attenuation coefficient of OTDR signals was formed. Then a Kalman Filter suitable for this model was designed. It is observed that, Kalman Filteris is successful in detection of non-reflective events and their locations for both synthetic signal and the real signal measured with OTDR.

**Keywords:** OTDR data, Fiber event detection and localization, Kalman Filter, Signal processing

## ANALYSIS OF OPINIONS AND ATTITUDES OF NURSES REGARDING POSSIBILITIES OF PROFESSIONAL DEVELOPMENT OF NURSES IN POLAND

*Joanna Gotlib, Mariusz Panczyk, Barbara Kot-doniec, Halina Żmuda-trzebiatowska, Jaroslawa Belowska, Lukasz Samolinski, Aleksander Zarzeka*

In Poland nurses can participate in other forms of professional development, e.g. second-cycle programmes, postgraduate training, certified trainings and courses covering various thematic areas. The present study aimed to analyse opinions and attitudes of nurses regarding possibilities of professional development and undertaking courses for upgrading skills of nurses in Poland. 1244 nurses: 1165 women (93%). Mean age: 42.59 years (min. 26, max. 58, SD=6.561; mode: 40, median: 43). Education: secondary medical: 404 persons (32%), Bachelor's degree: 394 persons (31%), Master's degree: 346 persons (27%). A vast majority of the study group at present work in the public sector. The approval of the Ethical Review Board of Warsaw Medical University was not necessary. The survey was anonymous, voluntary, and was performed with the use of an original questionnaire. The questionnaire comprised 14 questions concerning the interests of the study group of nurses as far as participation in professional development courses and trainings is concerned. The questionnaire involved two open-ended and 8 close-ended questions and four questions with Likert scale as well as 13 demographics questions. Cronbach's alpha coefficient (0.829) was used to analyse the questionnaire reliability. 85% of nurses had never had a meeting with a professional counsellor and 68% of the total said that there were no specific rules of promotion at their present workplace. The nurses believed that the present offer of postgraduate training for nurses was suitable for the needs with reference to the development of professional skills (78%), organisational capacity in the workplace (61%), and adjusted to the changing demographic and epidemiological trends in Poland (58%). Most study participants said that continuous upgrading of professional skills: influences salary (54%), is necessary to maintain high nursing standards (87%), and increases the prestige of the profession (78%). Nevertheless, as many as 91% of the study participants take part in trainings 1-3 times a year or less frequently and 56% of the total pay for the participation themselves. 58% of the nurses admitted that financial barriers were the key reason of their limited participation in various forms of professional development courses. The offer of available professional development courses is highly appreciated by nurses and barriers limiting their participation in trainings are objective and require systemic changes in the organisation of professional development of this particular professional group, which could increase the interest of nurses in participation in different forms of professional development, and hence, improve the quality of their service.

**Keywords:** Nurses, Professional competencies, Professional development, Professionalism

## ANALYSIS OF PRESERVICE SCIENCE TEACHERS' QUESTIONING SKILLS ABOUT GENE CLONING ACCORDING TO BLOOM'S REVISED TAXONOMY

*Isil Koc, Meltem Kuvac*

The purpose of this research was to analyze preservice science teachers' questioning skills about gene cloning according to Bloom's Revised Taxonomy. The research was conducted with 286 senior preservice teachers enrolled in the Elementary Science Education Program at a public university in the nortwestern Turkey, during 2011-2015 academic years. This research was carried out in scope of Special Topics in Biology course and for the data collection, preservice science teachers were requested to prepare questions about gene cloning before the topic is discussed in the class. The qualitative research method was utilized in this research. Data were analyzed with the content analysis technique using Bloom's Revised Taxonomy of Cognitive Objectives. According to results, the majority of preservice science teachers' questions revealed lower-order cognitive skills (71.78%). In addition, most of the questions required understanding of conceptual knowledge(27.61%). Results are discussed and recommendations are also made for future research in teacher education.

**Keywords:** Questioning skills, Bloom's revised taxonomy, Gene cloning, Preservice science teachers, Teacher education

## ANALYSIS OF PRODUCTION SYSTEMS IN DAIRY FARMS OF SETIF AREA (ALGERIA).

*Benidir Mohamed*

Algeria is the largest consumer of milk in North Africa, nearly 140 liters / capita approximately 80 liters are imported.Consumption has increased by 81% since 2000 (ITELV, 2012). Domestic raw milk production is estimated at 3.14 billion liters, whose 73% are supplied by the cattle population (2.3 billion liters). Half of the bovine milk production is provided by Modern Dairy cows comprising less than 30% of the livetock number in dairy cows totaled 966,000 heads.The wilaya of Setif is considered a dairy cluster in Algeria with a cattle number estimated at 128,574 head, including 72,966 dairy cows and a milk production of around 250 million liters per year (DSA, 2012), but productivity of farms remains low.In this context, this work aims to characterize the dairy farming production systems in the wilaya of Setif. A survey was conducted between October 2012 and May 2013. Feeding is the problem that is acute to farmers. Feed resources are from three sources: i) produced in farm (grown forages, byproducts), ii) provided by the free occupations (public lands) which are either grazed and / or mowed, and iii) purchased (hay, straw and concentrate feed). The practice of natural mating is widespread in the study area (80%).The artificial insemination (AI) is therefore poorly developed. This is due to a lack of control of the AI due to lack of experienced people.The development of dairy farming is inseparable from the intensification and diversification of forage crops, which requires the conversion of rotations from cereal crops-fallow to cereal crops-forage legumes.

**Keywords:** Cattle, milk, production, Setif, semi-arid

## ANALYSIS OF RELATIONSHIP AMONG MIDDLE SCHOOL STUDENTS' SCIENTIFIC ATTITUDE, COMPUTER ANXIETY, EDUCATIONAL INTERNET USE, PROBLEMATIC INTERNET USE AND ACADEMIC ACHIEVEMENT

*Mehmet Bekmezci, Ismail Celik, Ismail Sahin*

In this research, students' scientific attitude, computer anxiety, educational use of the Internet, academic achievement, and problematic use of the Internet were analyzed. The research group involved 361 students from two middle schools which are located in the center of Konya. The general survey method was adopted in the research. A total of four scales were implemented. These four scales included a total of 13 sub-dimensions. In this research, a structural equation model was also developed to find out the relationship between the students' scientific attitude, computer anxiety, educational use of the Internet, the problematic use of the Internet, and academic achievement. The developed model showed that when the scientific attitudes of the students increase, their academic successes also rise. Students' educational use of the Internet is positively correlated with their academic accomplishments. Students' academic achievement and problematic Internet use is found to be negatively related. While students' problematic Internet uses increase, their scientific attitudes reduce. The computer anxiety has a negative impact on the scientific attitude. Problematic use of the Internet is positively correlated with the educational use of the Internet while the computer anxiety is negatively correlated with the problematic Internet use. Computer anxiety is also negatively correlated with the educational use of the Internet and the academic success. In addition, the findings show that the increase in the educational use of the Internet is indirectly related to the increase in the scientific attitude.

**Keywords:** Scientific attitude, Computer anxiety, Educational internet use, Problematic internet use, Academic achievement

## ANALYZE THE EFFECTS OF ORGANIZATIONAL IDENTIFICATION ON TEACHERS BY USING DATA MINING

*Ahmet Boyaci, Gökben Bayramoğlu*

Organizational identification is defined as psychological dependence of employees to their organizations. It is possible to say that the organizational identification has positive relationship with performance and organizational citizenship behavior and it has negative relationship with intention of quitting the job. In this study, it was aimed to determine the effects of organizational identification on teachers according to educational status. To this end organizational identification survey was implemented to a group of teachers who work in Çorum and the results were interpreted by using data mining.

**Keywords:** Organizational identification, Data mining

## ANALYZE THE EFFECTS OF PERCEIVED ORGANIZATIONAL SUPPORT ON TEACHERS BY USING DATA MINING

*Ahmet Boyaci, Asli Çaliş*

If the employees see value by their organizations and they feel safe themselves, it is defined as perceived organizational support. Positive perceptions of employees related to organizational support are assumed to improve business performance and increase emotional commitment. In this study, perceived organizational support survey was implemented to a group of teachers who work in Çorum to determine the effects of perceived organizational support on teachers according to gender and the results were evaluated by using data mining.

**Keywords:** Perceived organizational support, Data mining

## ANALYZING PEDAGOGICAL FORMATION COURSE STUDENTS' PERCEPTIONS ABOUT BASIC PEDAGOGICAL CONCEPTS WITH WORD ASSOCIATION TEST

*Bulent Dos, Eyup Yurt*

The main of this study was to analyze the pedagogical formation students' perceptions about pedagogical concepts with word association test (WAT) which helps to reveal the cognitive structure and the network between concepts of the students. The study group consists of 250 students attending pedagogical formation course at Gaziantep University, Nizip Faculty of Education in 2015-2016 education year. Students were given 5 key concepts related with basic education concepts and they were asked to write down the associations they thought of in 4 minutes. A frequency table was generated with the data and key concepts. In the light of the frequency table data, network of concepts which reveals students' cognitive structure. As a result of the study students mostly wrote education, instruction, school, student, teacher, classroom, lesson, and exam and knowledge concepts. Besides it was found that students mostly have positive views but also some misconceptions about education.

**Keywords:** Education, Word association test, Pedagogical formation course, Instruction, Teacher candidates

## ANIMA ARCHETYPE IN ZIYA OSMAN SABA'S POEMS

*Zeynep Tek*

Ziya Osman Saba is considered to be one of the 'house' poets of modern Turkish poem. Thishouse has a feature integrated with his mother and childhood memories. The poet lived between the years 1910-1957 has three books of poetry titled "Sebil ve Güvercinler" (1943), "Geçen Zaman" (1947) and "Nefes Almak" (1957). When these works are examined that there seems to be a combination of features that make it compulsory to examine the art of his life. Reading his poems in the light of psychoanalytic and archetypes theory will be useful to understand the meaning values of his works. In this study, all of his poems will be studied according to the anima archetype theory presented by Carl Gustav Jung. The anima archetype within human psycheis called by the image of collective women in the man's unconscious. Jung has stated that this archetype should be considered as a mother image in the collective unconscious unlike the archetypal mother's personal. According to him, the only source of mother's image in man psychology is not personal mother, "it is an archetype projected to mother; this archetype has a mythological

background and gives an authority or divinity to mother." The purpose of this work is to reveal that how the anima archetype which has often addressed in Ziya Osman Saba's poems effects to consitute his poems in the literary sense. Also, this study is addressed the meanings of the anima archetype such as mother, lover and wife.Thus it will be examined why the anima archetype corresponded to a “angel” in his poems by psychoanalytic reading.

**Keywords:** Ziya Osman Saba, Anima archetype, Textual analysis, Carl GustavJung, psychoanalytic

## ANTIMICROBIAL ACTIVITIES AND ABSORPTION PROPERTIES OF DISAZO DYES CONTAINING IMIDAZOLE AND PYRAZOLE MOIETIES

*Çiğdem Karabacak Atay, Merve Gökalp, Banu Özden Tuncer, Tahir Tilki*

Thirteen azo dyes containing pyrazole and imidazole moieties were synthesized by diazotization reaction of 5-amino-4-arylazo-3-methyl-1H-pyrazoles and coupling reaction with 1-methyl imidazole. Their structures were characterized by spectroscopic methods (FT-IR, 1H-NMR, elemental analysis). Their solvatochromic properties were studied in five different solvents (DMSO, DMF, methanol, acetic acid and chloroform). In addition, the antimicrobial activities of the synthesized azo dyes were examined by the well diffusion method against twelve pathogenic bacteria (Escherichia coli ATCC 26922, Echerichia coli LMG 3083, Staphylococcus aureus ATCC 25923, Staphylococcus aureus ATCC 29213, Bacillus cereus FM1, Bacillus cereus ATCC 10876, Salmonella Typhimurium ATCC 14028, Salmonella Typhimurium SL1344, Salmonella enteritidis ATCC 13076, Listeria monocytogenes ATCC 7644, Listeria monocytogenes ATCC 19115 and Enterococcus feacalis ATCC 29212). Tetracycline and DMSO were used as positive and negative controls, respectively. After incubation at 37ºC for 24 h inhibition zones were measured as mm. All of the dyes showed good antimicrobial activity against different bacterial strains.

Main Author: Çiğdem KARABACAK ATAY

**Keywords:** Imidazole, Pyrazole, Heterocyclic dye, Spectroscopic property, Antimicrobial activity

## ANTIPROLIFERATIVE ACTIVITY OF EXTRACT OF HYOSCYAMUS ALBUS L. AND UMBILICUS RUPESTRIS L.

*Yahia Mouloud, Yahia Massininna, Benhouda Afaf, De Feo Vencenzo*

In recent decades the search for new oncotherapeutic agents of natural origin with selective antitumor activity is of significant priority for cancer treatment. Umbilicus rupestris (Crassulaceae) is a medicinal plant used in traditional medicine against inflammation and irritation of the skin and H.albus is a plant which belongs for Solanaceae family, it used in traditional medicine as a nervous sedative and parasympatholytic. The anticancer effect was investigated by MTT cell viability assay on human breast cancer cell lines MCF7, cervical cancer cells HeLa and prostate cancer cell lineS PC-3. In the cytotoxic activity of HAMeOH and URMeOH against cell lines MCF7, HeLa and PC-3, the concentrations tested of HAMeOH show IC50= 112.01µg/ml, 129.23µg µg/ml and 142.35 µg /ml against PC-3, HeLa and MCF7 respectively. Mercapto shows IC50= 30.17µg/ml, IC50= 40.21 µg /ml and 46.01µg/ml against PC-3, HeLa and MCF7respectively. But the URMeOH extract reduce cellular viability but without reaching 50% of them.

**Keywords:** Hyoscyamus albus L., Umbilicus rupestris L., cell lines, Cell viability, antitumor potential

## ANTIROLITHIATIC ACTIVITY OF METHANOLIC EXTRACT OF HYOSCYAMUS ALBUS L. (SOLANACEAE)

*Benhouda Afaf, Yahia Mouloud, Yahia Massinissa, Benbia Souheyla, Benhouda Djahida,*

H.albus is a plant which belongsfor Solanaceae family, it used in traditional medicine as a nervous sedative and para sympatholytic. They could isolate some tropane alkaloids such as scopolamine, hyoscyamine, atropine and also with spectral technics they isolated 2, 3 – dimethyl nonacosane . The present work has for objective to evaluate the antiurolithiasise activity of methanolic extract HAMeOH of the plant Hyoscymaus albus. In antiurolithiasis activity ,six groups of Wiwtasr rats were treated respectively with distilled water ,1% ethylene glycol in distilled water ,HAMeOH (100 mg/Kg b.w.), HAMeOH (200 mg/Kg b.w.) beginner the first day, HAMeOH (100 mg/Kg b.w.), HAMeOH (200 mg/Kg b.w.) after 15 days of administration of ethylene glycol. Just after 28 days of experiment, urine samples were collected and the volume, the pH was measured. After, were analysed for the follwiwnd dosage: urinary oxalate, urea, creatinine and uric acid, and the blood is collected for the following dosage: urea, creatinine and uric acid. The results showthat the control group has severe damage, while the groups treated with HAMeOH reduced significatively (P ≤0.05) the formation of stones in the kidneys.

**Keywords:** Hyoscyamus albus L., Solanaceae , Ethylene glycol, antiurolithasic, HAMeOH

## APPROACH OF SEXUAL FUNCTION FOR SELECTING BREEDING RAMS OF OULED DJELLAL BREEDS

*Amal Djaout, Farida Afri-bouzebda, Yamina Belkhiri, Zoubir Bouzebda*

The selection of rams for natural or artificial insemination for improving animal performance is of particular importance given the number of descendants obtained by breeding season. For this purpose, various aspects are to be explored to determine this choice. Six Ouled Djellal breed rams in Setif region were used to study the effect of season on certain testicular parameters and serum testosterone concentration during summer and autumn. Testicular measurements recorded are: testicular weight (TWg), testicular length (TL), testicular width (TW), testicular thickness (TT), scrotal width (SW) and the scrotal circumference (SC) and the testosterone determined by the enzyme immunoassay. The results obtained are respectively: 471.67 ± 165.93 g, 11.27 cm ± 1.38, 5.76 ± 0.69 cm, 6.35 cm ± 0.74, 11.01 ± 1.16 cm, 33.03 cm ± 3.05 and 1.93 ± 1.63 nmol/l indicate that there are very highly significant different seasonal variations of testicular.

**Keywords:** Ram, Ouled djellal breed, Testicular parameters, Testosterone

## ART AND VISUAL CULTURE: YESTERDAY IS NOT TODAY

*Elaine A. King*

While the Enlightenment was grounded in Western civilization's values, the After Post-Modern Project encompasses global culture, transcends all borders, and encompasses not only Euro-American culture but also those of the Third World and beyond. With a shift from the ideals of the Modern to the Post-Modern and to the After Post, questions about the training in art and visual culture require change. The aim of this paper is to address the education in the arts in terms of a widening realm of influences impacting both the teaching and making of art, as well as to acknowledge the new type of student and audience that has been evolving in our digital age of information. In 1990 the prominent educator Howard Gardner wrote that didactic training of adults toward more sophisticated understandings of art is destined to fail; instead new understandings must be allowed to emerge over several years of study as a result of regular, immersive interactions in artistic, physical, and social contexts (1990). Visual culture is a complex area thus educators must theorize and create a much-needed overhauled curriculum that acknowledges the ongoing transformation of society and the impact on the arts and humanities. The expansion of a conceptual theoretical framework for post-post modern visual culture in the 21st century is vital for contemporary teaching in order to communicate to a new generation of students. The alteration of visual culture not only references the expansion of the range of visual art forms included in the curriculum but also issues and imagery that are outside the realm of this subject. Because of the expansion of communication accessibility and shifts in social values, it includes issues concerning the power of representation, evolving cultural identities, meaning of creative production, evolution of visual narratives, pervasiveness of technology through all facets of life, and the consequence of interdisciplinary influences. This transformation must include more than an augmentation of curriculum content –it must include changes in teaching strategies in response to the immediacy and mass distribution of imagery. A level of theorizing about art needs to connected to the emergent After-Postmodern philosophies based on the emergent environment of intercultural and trans-cultural visualization. In recent years the visual arts have been more contextually explored and analyzed in subjects including sociology, critical theory, feminist and media studies. However, the transformation of curriculum referenced here needs to take into consideration the needs of its audience—the student who requires more then intellectual theoretical rationalization.

**Keywords:** Transformation, Technology, Curriculum change, Audience

## ARTIFICIAL NEURAL NETWORK MODELLING IN DETERMINATION OF AFOCAL BEAM MODE

*Nimet Isik, Ali Hakan Isik*

With the development of intelligent systems, successful applications have been performed in many scientific disciplines. In this context, novel studies are enabled by artificial neural networks (ANNs). ANNs inspired by biological neurons is parallel computing algorithm having the learning ability. With the ability of learning, meaningful results can be achieved by optimum data set. In this study, a three-layer back-propagation artificial neural network has been applied to the determination of afocal beam mode for five-element electrostatic cylinder lenses. The SIMION 8.1 simulation program is used as a data mining tool. Analysis of these data has been performed using Matlab R2012b. The obtained results show that the ANNs are an alternative method to obtain lens parameters which provides an afocal beam in image point. This study will provide new perspective in this field.

**Keywords:** Artificial neural network, Electron optics, Electrostatic lenses

## ASSESSMENT OF EDUCATIONAL SOFTWARE AND PAPER-BASED MATERIALS THAT AIM TO TEACH LOGICAL-THINKING SKILLS TO ELEVEN AND TWELVE YEAR OLDS

*Peter Fenrich*

To determine whether there were any differences between the effectiveness of educational software and paper-based materials in teaching the logical-thinking skills of classification, analogical reasoning, sequencing, patterning, and deductive reasoning, a quantitative assessment was conducted using a pre-test, post-test, experimental design. One-way ANOVAs were used to compare an experimental group learning from educational software (32 students), an experimental group learning from paper-based materials (32 students), and a control group (32 students). Tukey HSD Post Hoc Tests were performed since a significant difference was found between the groups. For each test, the subjects taught through educational software and those taught through paper-based materials scored significantly higher in logical-thinking ability than the control group, except for the subskill of deductive reasoning for both experimental groups. There were no significant differences between subjects taught through educational software and those taught through paper-based materials on any test. Results from paired samples t-test results showed that the subjects learning from educational software and those learning from paper-based materials had significant percentage gains on all of their pre-test to post-test scores, except the subjects learning through paper-based materials showed no significant gains on the subskill of deductive-reasoning.

**Keywords:** Logical thinking, Instructional design, Educational software

## ASSESSMENT OF SPECIAL FIELD EFFICIENCIES OF TEACHER CANDIDATES OF SOCIAL STUDIES TEACHING EDUCATION

*Hakan Akdağ*

This study was prepared in order to assess teacher candidates who are outputs of undergraduate program of social studies teaching within the framework of Special Field Efficiency Circular issued by Ministry of National Education General Directorate of Teacher Training and Education. Special field efficiencies of undergraduate education received by of social studies teacher candidates was tried to be determined within the scope of A3 level of above-mentioned circular within the framework of their field knowledge, professional knowledge and general culture courses. 5 point likert scale which is in accordance with A3 level of the circular, was used for the study designed in survey model. In the study, relationship between variables of gender, department preferences, academic average and efficiency was tried to be determined. Questions was finalized based opinions of five field experts and preliminary application was performed. Final assessment instrument was applied to 4th grade students receiving education in social sciences teaching undergraduate program in primary education department of faculty of education. Recommendations were presented within the framework of study results.

**Keywords:** Social studies education, Undergraduate program, Special field efficiency

## AUTOMATIC METER READING SYSTEMS: INFORMATION SECURITY THREATS AND SOLUTIONS

*S. Mehtap Izmirli Ayan, Gürkan Tuna, Bahtiyar Dursun*

An automatic meter reading (AMR) system automatically collects consumption data from energy metering devices. The collected data is used for several reasons including billing purposes, usage analysis, consumption management, and problem identification and resolution. AMR systems reveal exactly how a site uses electricity and where cost reductions and savings can be made. This way, the efficiency is improved and costs are reduced. Usage data gathered by AMR systems are provided on a real-time basis and thus can be viewed at any time. This data is stored in a repository for analysis purposes. Although AMR systems provide many benefits to electric utilities, some types of AMR meters make the gathered data publicly available over unsecured wireless transmissions. Since they use a basic wireless communication protocol based on frequency hopping, they do not ensure the security of the data in terms of confidentiality, integrity, and authenticity. Therefore, the transmissions from the AMR meters can be picked up and the original data can be revealed. In addition to this kind of eavesdropping attacks, spoof messages can be sent to falsify the reading gathered by commonly used remote readers. In this paper, information security threats in AMR systems are reviewed and solutions are proposed.

**Keywords:** Smart grid, Automatic meter reading, Information security threats, Solutions

## BALANCING U SHAPED ASSEMBLY LINES UNDER SEQUENCE DEPENDENT SETUP TIMES BY USING A MATHEMATICAL PROGRAMMING FORMULATION

*Murat Şahin, Talip Kellegöz*

Assembly lines are important manufacturing systems generally used to produce standardized products in high volume. These lines have been widely studied for several decades and different versions of them have been improved according to the manufacturing requirements such as U shaped, parallel and two sided line. U shaped assembly lines are commonly used in just in time production systems and many solution approaches for balancing these lines have been improved in the literature. In these solution approaches, tasks times are often assumed deterministic, and also sequencing of tasks which are assigned to the same station is supposed not important. In many cases, setup times among the adjacent tasks are generally ignored or included in task times in order to reduce the complexity of problems. However, in most of real life applications, setup times generally have an impact on the station time. Therefore, considering the sequencing of the tasks in a station load and considering setup times among task pairs performed consecutively may mostly make the problem more practical. In this study, balancing U shaped assembly lines under the sequence dependent setup times is handled to increase the productivity. A detailed problem definition is given and its mixed-integer linear programming formulation is presented in order to obtain optimal solutions. An illustrative problem instance is solved by using CPLEX 10.2, and the results are presented.

**Keywords:** Sequence dependent, set-up times, U shaped assembly line

## BARRIERS TO TECHNOLOGY INTEGRATION: LITERATURE REVIEW

*Ismail Celik*

Technological developments have affected the social life and caused radical changes in various fields as well as education. It is necessary to integrate the opportunities that technology offers in the process of learning and teaching in relevant and functional ways. There is a gap between the amount of technology available in today's classrooms and teachers' use of that technology for instructional purposes. One reason for this gap is that teachers face many barriers when they want to utilize those into their instruction. The purpose of this research is to define these barriers with a detailed literature and to review the barriers to technology integration. In the relevant literature, barriers to technology integration into teaching are as follows: Access to technological tools (when it does not work properly), attitudes and perceptions (about the usefulness of and ease of use related to integrating technology), and professional development (when it lacks connection to actual classroom practice or focuses merely on technical skills), time (technology integration process requires much more time to plan for and learn to use it), lack of technical support and appropriate administrative support, lack of financial support. This paper provides detailed information about factors affecting technology integration negatively.

**Keywords:** Educational technology, Literature review

## BENCHMARKING AS TQM TECHNIQUE IN EDUCATION ORGANISATION

*Gadaf Rexhepi, Veland Ramadani, Sadudin Ibraimi, Rasim Zyferi, Shenaj Haxhimustafa*

One of most important aspect that education organizations need to pay attention when it comes to being competitive is the use of benchmarking as total quality management (TQM) techniques. Benchmarking is one of the best techniques for improving quality in education organization Benchmarking was used by many Japanese organization in creating their competitive advantage which it has a great impact on their performances. In this paper we will try to help education organization to understand what is benchmarking, how it works and how it can gain competitive advantage these organizations. The aim of this paper is also to develop a conceptual framework of the use and influence of benchmarking in education organizations' performance by providing the relationship between this technique and overall performance. This technique contribute to Increase the overall quality, increase innovations, increase the employees' involvement and loyalty and increase the financial stability of education organizations.

**Keywords:** Total quality management, Benchmarking, Benchmark, Internal benchmarking, External benchmarking

## BIOCHEMICAL BLOOD PARAMETERS CHANGE DURING POST-PARTUM PERIOD OF OULED DJELLAL EWES IN SEMI-ARID AREA.

*Ramzi Lamraoui, Farida Afri-bouzebda, Zoubir Bouzebda*

The objective of this study was to investigate postpartum profiles of biochemical blood constituents in Ouled Djellal ewes (n=10) during 4 weeks following parturition.Blood samples collected from parturient ewes, managed semi-intensively, were analyzed for biochemical indices such as glucose, triglyceride, cholesterol, creatinine, urea, albumin, total protein, calcium, phosphorus, magnesium, potassium, chloride, sodium, Aspartate aminotransferase (AST) and Alanine aminotransferase (ALT). These biochemical indices were evaluated at 1 week intervals for 4 week period.The results obtained in this study showed a significant difference.

**Keywords:** Biochemical indices, postpartum, ouled djellal ewe, semi-arid region

## BIOLOGY COURSE REGARDING "ANIMAL KINGDOM", THE EFFECT OF BRAIN-BASED LEARNING ON THE STUDENTS' SUCCESS, THE PERMENANCE OF THEIR KNOWLEDGE, THE ATTITUDES TOWARDS THEIR COURSE

*Adile Selçuk, Hikmet Katircioğlu*

The purpose of this study was to examine the students' success, the permanence of their knowledge and their attitudes towards course by using the brain-based learning approach regarding "Animal Kingdom" subject taught. In this study, one of the real trial models which is the pretest-posttest control group research model was used. The research was conducted on 9/P class (experimental group=24) and 9/K class (control group=22) at Etlik High School in Keçiören town of Ankara province by using random assignment in 2010-2011 academic year. The implementations which were performed as 4 weeks for 2 hours per week included brain-based learning approach on experimental group and conventional methods on control group. "The Personal Information Questionnaire" to determine equivalence of experimental and control groups, "Achievement Test" which was improved by using a variety of sources and taking expert opinion to identify knowledge levels of the students regarding "Animal Kingdom", "Biology Attitude Scale" to determine attitudes of students towards biology course, and "Student Opinion Questionnaire" determine opinions of the students about the brain-based learning approach were used to collect data. "The Personal Information Questionnaire", "Achievement Test", and "Biology Attitude Scale" was conducted to all students before the experimental study. "Achievement Test" and "Biology Attitude Scale" to all students in the study, and "Student Opinion Questionnaire" to 5 voluntary students of the experimental group were conducted after the implementation. In addition, "Permanence of Success Test" was conducted three mounts after the implementation done to all students. The analyses of the data obtained from this study were performed with SPSS package program (Statistical Package for Social Sciences). Percentage and frequency distribution, mean, Paired Samples T-Test, and Independent Samples T-Test values were used as parameters in data. According to the results of this study regarding achievement posttest points and permanence of success test points, a significant difference in favor of the experimental group were found between the experimental group and the control group. There was no significance difference found between the experimental group and the control group regarding their attitudes towards biology course. In addition, it was determined that the students have positive opinions about the implementations of the brain-based learning according to interviews done.

**Keywords:** Brain-based learning, Achievement, Attitude, Permanence

## BIOLOGY STUDENT TEACHERS' IDEAS ABOUT THE SECONDARY EDUCATION 9TH GRADE BIOLOGY TEXTBOOK

*Musa Dikmenli, Osman Çardak*

Today, a great variety of course tools and materials are used in the classroom environments. Textbooks are one of them. Secondary education biology textbooks are one of the most frequently used effective teaching materials to develop the purposes of teaching. Students and teachers are known rely on, believe in and be highly faithful to textbooks. Textbooks should be analyzed at different dimensions so that students can properly make use of textbooks. The purpose of this study is to research the ideas of biology student teachers about the secondary education 9th grade biology textbook. The 9th grade biology textbook which was examined is a book which is recommended for all high schools by the Ministry of National Education. The study group of the research consists of 24 biology student teachers who are studying at a state university in Konya province. Student teachers examined the 9th grade biology textbook in the academic year of 2015-2016 for 8 lesson hours in teaching technologies and material design lesson. At the end of the examination, the participants were given a "Biology Textbook Evaluation Form". In the Evaluation Form, there were questions about scientific content, teaching approach, design, laboratory activities, readability and teaching aids. In this form, semantic scale was used. This scale included the characteristics which should be available in the book and answer was sought for to what extent the book reflected these characteristics. The answers involved poor, average and good ratings. Additionally, the participants were asked to write their opinions and suggestions about the book examined with an open ended question. The data obtained from this question was interpreted by content analysis. The results put forth that the textbook was sufficient at good level in terms of scientific content, teaching approach, laboratory activates and teaching aids; and sufficient at an average level in terms of design and readability. The participants also stated that new developments should be addressed more particularly about the topics such as molecular biology and cellular biology in the textbook. The results were discussed with literature and suggestions were developed.

**Keywords:** Biology, Textbook, Education

## BROAD-BASED PARTICIPATORY INQUIRY INTO THE DEFINITION AND SCOPE OF DISASTER

*Fulya Öztürk Taşci, Ayşe Oğuz Ünver*

Understanding what disaster means will not only raise our awareness but will also bring us closer to knowing how to protect ourselves in the face of this adversity. The objective of this study is to examine how the concept of disaster is perceived in different segments of the population and by defining the term, to determine its scope and contribute in the long term to the content and effectiveness of the disaster education provided in the schools. The sample for the study, which was of survey design, comprised 1600 individuals. A "Disaster Definition and Scope Scale (DDSS)" developed by the researchers to inquire into the definition and scope of disasters was used as a data collection instrument. The Cronbach Alpha reliability coefficient for the internal consistency of the scale is .83. The frequency analysis method of statistical analysis was used to examine the participants' demographic features. The responses of the participants to the open-ended questions on the definition of disaster were examined under 4 main themes that categorized the responses as nature-based, people-based, belief-based and outcome-based. The third section made up of 25 items on the scope of the term disaster was analyzed using the one-way analysis of variance and the Scheff test was employed to ascertain the source of the significant differences between the groups in an inter-group post-hoc comparison. The conclusion of the study is that the concept of disaster is generally confused with natural phenomena in every segment of the population and that the participants in the research were not even aware of the existence of institutions, associations and civil defense organizations that conduct disaster emergency operations. The media occupies an important place in providing the public with disaster information.

**Keywords:** Natural phenomenon, Disaster, Natural disaster, Disaster education

## BUILDING THE BONDS OF LOVE IN THE LITTLE PRINCE

*Duygu Dinçer, Halil Ekşi*

The Little Prince, the most well-known book of Antoine de Saint-Exupery, was published in 1943 and it is still one of the bestsellers since then. Although the book generally is regarded as a product of children's literature it is for all readers of all ages. The book addresses travels of Little Prince to other planets and his dialogues with other people, plants and animals that he met during these visits. Especially, the relationships that he established during visit to Earth are very important to gain understanding on building love relationships, and also the content and growth of attachment relationships. Particulary, three of these relationships (his relationships with aviator, rose and fox) provides a rich data source in terms of building and growing love and attachment relationships. The aim of this study is to examine the process of building love and attachment relationships of Little Prince with rose and fox within the context of psychological and philosophical approaches. For this purpose, these two relationships have been examined in the light of viewpoints of psychology researchers such as John Bowlby, Erich Fromm and Melaine Klein and also, thinkers such as Gabriel Marcel, Martin Buber, Maurice Merlau-Ponty and İlham Dilman.

**Keywords:** The little prince, Love, Attachment, Responsibility, Care

## CAPRINE BREEDING IN THE ALGERIAN NORTHEAST BETWEEN OPTIMIZATION OF THE PRODUCTION AND ANIMAL WELL-BEING

*Mounira Bensalem, Farida Bouzebdz-afri, Zoubir Bouzebda, Hind Houssou, Khaireddine Chaouel, Bensalem Nessrine*

The goat specie has been neglected for a long time in Algeria and worldwide and the studies and the publications on their subject are not so many. The aim of our study is the characterization of this breeding in Algeria by establishing and specifying all the characteristics of the goat populations on one hand and the characteristics of the breeding in its various facets on the other hand. Our work is a study displayed over a period of one year (2011-2012 ) including a sampling of 709 subjects on 13 breedings distributed in the Northeast of the country. "It is about a descriptive prospective epidemiological study, observational, forward-looking, regional multicentric, non-interventional and unchecked of the caprine subjects and their atmospheres." We notice that the demography of goats is clearly lower than the other species. Individuals: anarchy Crossings between local populations and introduced foreign races. Studied component: male Inferiority (19.02 %). Ratio breeder / Goats: 57,6 % of breeders possess between 50 and 100 heads. Type of breeding: ascendancy of the semi-extensive breedings (76.9 %). Cattle-breeding area: 53,21 % in mountainous zones. Feeding timetable: function of the meteorology and state of pastures. In the cold period, food supplements are used in only 23 %. The housing environment: Ascendancy of the traditional goat shed (53,86 %). 84,62 % of Supplying with water are provided by the breeders via makeshift means. It seems clear that the goat breedings are present in all the geographical zones, the livestock is raised in a semi-extensive way with a makeshift means in a purpose of a production for the family consumption.

**Keywords:** Goat, Breeding, Algeria, Characterization

## CHALLENGES OF 4TH-YEAR MIDDLE-SCHOOL STUDENTS IN THE PROCESS OF MATHEMATICAL MODELING: SUMMER JOB PROBLEM

*Neslihan Şahin, Ali Eraslan*

The purpose of this qualitative study is to examine mathematical modeling processes of 4th year middle school students while working on a model eliciting activity, the Summer Job Problem, and to determine the difficulties encountered in the processes. This research was conducted in a middle school in a small county of a large city along the Black Sea Region of Turkey. Participants were 4th year middle school students in a state school. After a six-week preliminary study implemented on 24 students who had not experienced modeling before, the criterion sampling method was used to select three students that would be recruited into the focus group. The focus group was asked to work on the model eliciting activity of the summer job problem and the entire process was recorded on video. A written transcript was made of the video recording, after which the recording and the students' worksheets were analyzed using the modeling cycle. The results of the study revealed that students expressed their ideas through discussions with students in the process, developed different assumptions and they appropriately could do mathematical calculations. On the other hand, students had difficulties (a) to interpret the data tables, (b) to identifying the variable of intensity, (c) use the main factors at the data tables and develop assumptions which includes these main factors, (d) justify the developed model.

**Keywords:** Model eliciting activity, Mathematical modeling, Summer job problem, Middle school students

## CHAOS, CREATIVITY AND NATURE OF SCIENCE FICTION

*Mustafa Şahin Bülbül*

Chaos theory is one amongst the vital and helpful theory to know the real development in natural settings. Before the chaos theory, all scientists explained the nature by ignorance of details. They indicated complicated dimensions into one or 2 factors and located these throw interactions. When the chaos theory we've an opportunity to explain in a very holistic manner. Learning is one amongst the instance of chaos in organic structure. We tend to decision this development as creativity. In basic, the term creativity explains however a human brain create 2 or a lot of ideas at the side of a replacement perspective. This combining method wants awareness and validatory academic system. during this study, it has been aimed to explain the character of science fiction that is more properties in keeping with naked science. This study examples weakness of science as a result of its nature and weakness of human brain. Therefore, science fiction education are going to be one amongst approach to form human brain a lot of artistic by chaotic learning environments.

**Keywords:** Chaos theory, Creativity, Science education, Science fiction, Nature

## CHARACTER AND CULTURE IN EDUCATION

*Agim Poshka*

Every once in while we need to go back and analyze which were the roots and goals of education. Was it to educate individuals, communities or the whole society? In this labyrinth of wide variety of systems of education it seems that we moved from the original idea of "improving the society" into creating and ideal teacher. However, this ideal teacher would be full of skills and instruments but not very worthy if it lacks character. The paper argues on the dilemma raise by Dr. Martin Luther King Jr. that argued that .. "education has both a utilitarian and a moral function". He asserted that reasoning ability is not enough, and this is particularly evident in the present educational reality in which the sense of success and the virtue of the society are more often valued through individualism. The paper raises the dilemma if the purpose of the process is the individual or the community? Also, is the success of the educational system measured by the number of individual experts or the impact they have in the surrounding or the global environment? Is character in education a moral category or it includes cultural factors that are non-visible and sometimes non-measurable?

**Keywords:** Character in education, Culture, Educational systems, Individualism, Academic success

## CHEMISTRY CURRICULUM IN THE FIELD: HOW DO TEACHERS PRACTICE IT?

*Ayşegül Sağlam Arslan, Suat Ünal, Faik Özgür Karataş, Ayşegül Aslan*

Recently updated chemistry curriculum is arranged as basic and advanced levels. The general purpose of basic level chemistry education covering the first two years of secondary education is to have students build a chemistry culture and to improve their chemistry literacy. Teachers are considered one of the key factors accomplishing the overall purpose for curriculum in the field. Research has shown that professional experiences of teachers and their implementation and adoption levels of the curriculum are crucial to reach the purposes of the program. Thus, teachers are expected to carry on certain responsibilities and roles in curriculum implementation. The purpose of this study is to determine teachers' levels of implementation of the chemistry curriculum and the problems that they have been encountered in this process. The teachers' class practice was examined in five main themes including the activities of introduction to the course, the structure of didactics, teacher-student communications, usage of student centered approaches, and classroom management. In the study, a holistic multiple case study design was utilized. For this purpose, four chemistry teachers worked in Anatolian high schools in North Eastern part of Turkey have been selected as participants. In order to collect data, a course evaluation form (CEF) that complies with requirements of the current chemistry curriculum was developed and employed by the researchers. This form was reviewed by three experts in the field of educational research in the development process. The participating teachers' 10th grade chemistry classes were observed for four weeks by using CEF. The data obtained from observations were analyzed descriptively by calculating frequency of each item in CEF designated for each class hour. Each teacher's profile was constructed based on this analysis. Analysis of the observation forms has revealed that teachers have deficiencies in some subjects including motivating students, creating an environment for scientific discussions, summarization of the topic at the end of the class, giving examples from daily life, associating topics or concepts, using an effective tone of voice, enabling collaboration between students, keeping students mentally active in the process of attaining knowledge. At the end of the study, some recommendations are given for pre-service and in-service teacher training.

**Keywords:** Chemistry curriculum, Self assessment

## CITIZEN SCIENCE PROJECT NUCLEAR E-COLOGY; SCHOOL STUDENTS' KNOWLEDGE ON X-RAY AND NUCLEAR PHYSICS

*Tadeusz Wibig, Punsiri Dam-o*

We studied the basic knowledge of the nuclear (modern) physics of the high school students participating in our citizen science project "nuclear e-cology". The initial test was conducted before they start any activity. The test was designed for quick answers. It consists of ten multiple choice questions. The test participants can complete it, available also on the internet, with unlimited time. We wish to present some results were analyzed into four categories: all together, by country, by educational level and by gender. Results are based on 223 test answers from Polish, Thai and Russian students. This knowledge have been used in preparations and improvement of the educational materials used in the nuclear e-cology project.

**Keywords:** Citizen science, Modern physics education, Comparative studies

## CLASSIFICATION MODEL OF C++ COURSE IN E-LEARNING ENVIRONMENT

*Yousef Abuzir*

E-learning grows rapidly and it draws the attention to an important shift in the educational paradigm. This research tries to propose and design an intelligent e-Learning environment for students in which classification techniques and user profiles play the role of an automatic interactive classification system.This system will simplify the task of finding the learning materials and related topics. Our research discusses how specific concepts of the theories of indexing, classifying, retrieving and consultation of a collection of learning materials based on student profiles might support various instructional functions of e-Learning. In this research, we conduct an experiment that carried out on educational materials for C++ Language. Such an experiment has very special features, which make it different from other approaches by using thesaurus as a tool for classification. It is important to evaluate the effectiveness and efficiency of our approach. The experimental results illustrate an overall performance of classification techniques, having 88% of correctly classified.

**Keywords:** E-Learning, Classification, Thesaurus

## CLASSIFICATION OF WEB ATTACKS WITH MACHINE LEARNING ALGORITHMS: AN APPLICATION EXAMPLE

*Mehmet Sevri, Nurettin Topaloğlu*

Web applications are indispensable elements nowadays which people use very often to perform daily events. Web applications have a wide spread of usage area that covers shopping, communication, social media and corporate operations. For this reason, web applications have become a primary target for hackers. Separation of normal requests to web applications from attack requests and the protection of web applications from the attacks have become an important issue. In this study, classification of attacks against web applications by using several machine learning algorithms are examined. CSIC HTTP dataset including normal web traffic and various attack traffic against a shopping website is used in the study. Models that classify web traffic as normal and anormal are created using several machine learning algorithms. Machine learning algorithms are trained by HTTP dataset, models are created, success and performance values of algorithms and models are evaluated and compared.

**Keywords:** Web security, Web attacks, Machine learning, HTTP

## CLEAN ENERGY AND FERTILIZER PRODUCTION FROM DIRTY SEAS AND OCEANS

*Kadir Tuzlak*

This study has been conducted in order to clean out Hydrogen-sulphur that has been formed on the bottom of the seas and oceans for thousands of years by organic wastes and that bringing vital activity to an end; and to use the gas to be acquired as an alternative energy source and to acquire fertilizer from flue gas. In the study, hydrogen-sulphur mixed with water deep inside of the seas and oceans in location seaside provinces was taken from the seawater and stored following filtration.Superheated water steam was built up of thermal energy that was resulted from burning oxygen with the stored material in the special burning unit resistant to corrosion. Utilizing that steam in the steam turbine electric energy was produced.SO2 (sulphur dioxide), as a waste, and water came out as a result of this burning procedure. The waste gas was rectified in the flue gas waste treatment system. Ammoniac and zeolite were used as active (augmenter) agent. At the end of this study, it was observed that economically valuable fertilizer was acquired from electric energy, thermal energy and waste treatment.

**Keywords:** Clean energy, Zeolite, Hydrogen-sulpher and fertilizer, Amoniac and zeolite, Flue gas and sulphur dioxide

## CO-AUTHORSHIP NETWORK COMPARISON OF FOUR TURKISH UNIVERSITIES

*Ilker Türker, Rafet Durgut*

Co-authorship networks are remarkable applications of complex networks, an interdisciplinary framework of exploring systems composed of smaller components with numerous interconnections. Generating connections (links) between collaborating authors, we constructed co-authorship networks of four Turkish universities as İstanbul Technical University, Sakarya University, Selçuk University and Karabük University. Along with the node and edge counts, we investigated the time evolution of network parameters like average degree, modularity, clustering coefficient, average path length and network diameter in yearly resolution. We also outlined the effect of being a first-mover (or late) as a university in terms of the network parameters.

**Keywords:** Scientific collaboration networks, Complex networks, Co-authorship networks, Scale free networks, First mover advantage

## COMPARING NONSTANDARD FINITE DIFFERENCE METHODS FOR ORDINARY DIFFERENTIAL EQUATIONS WITH POLYNOMIAL RIGHT HAND SIDE

*Tarik Çelik, Bünyamin Şahin*

Two powerful recent non-standard finite different methods are compared. Also, Euler method to these two non-standard finite different methods are compared in terms of stability and accuracy. To show ideas, the initial value problem for an autonomous first order stiff ordinary differential equation with polynomial right hand side is considered.

**Keywords:** Nonstandard finite difference methods, Initial value problem, Nonlocal approximation

## COMPARISON OF 6-311G(D) AND 3-21G (DFT/HF) METHODS OF 3-METHYL-4-[3-(3-METHOXYBENZOXY)-BENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE

*Hilal Medetalibeyoğlu, Haydar Yüksek*

3-Methyl-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-one reacted with 3-(3-methoxybenzoxy)-benzaldehyde to afford 3-methyl-4-[3-(3-methoxybenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one (Medetalibeyoğlu, 2015). The compound was optimized by using B3LYP/6-311G(d) HF/6-311G(d) and B3LYP/3-21G, HF/3-21G basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09 (Wolinski, 1990). Theoretically calculated IR datas of this compound were calculated in gas phase by using of 6-311G(d) and 3-21G basis sets of B3LYP and HF methods and are multiplied with appropriate adjustment factors and the data obtained according to B3LYP and HF methods are formed using theoretical infrared spectrum. The identification of calculated IR data was used in veda4f program (Jamróz, 2004). Experimentally (Medetalibeyoğlu, 2015) and theoretically UV-vis values in ethanol were calculated and compared. Additionally, this compound were found bond angles, bond lengths, dipole moments, the HOMO-LUMO energy and total energy of the molecule with mulliken charges from both methods. The optained data with both methods were compared.

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**Keywords:** B3LYP, HF, GIAO, 1,2,4-triazol-5-one

## COMPARISON OF OPINIONS OF STUDENTS AND UNIVERSITY TEACHERS FROM MEDICAL UNIVERSITY OF WARSAW ON E-ASSESSMENT – A PRELIMINARY REPORT

*Joanna Gotlib, Mariusz Panczyk, Piotr Gębski, Aleksander Zarzeka, Jaroslawa Belowska, Lukasz Samolinski, Marcin Malczyk*

Until now, test exams at Warsaw Medical University were mostly carried out in the paper-and-pen test form. Beginning in the academic year 2014-2015, it is possible to get a credit and pass a test exam on the ASK Systems e-exam platform. The study aimed to compare opinion of students and university teachers from Medical University of Warsaw on e-assessment. Study group: 181 persons - 148 students: students, who took part in e-assessment on ASK Systems E-exam platfrom, (Group 1 - 59 students), and students, who did not take part in e-assessment (Group 2 - 89 students) and 33 university teachers (Group 3). Group 1 - 59 women, mean age: 24,96. 25 of students has alredy took part in an e-exam apart from university. Group 2 – 55 women, 25 men, mean age: 22,53. 80 of students has alredy took part in an e-exam apart from university. Group 3 - mean age: 46,57; 14 of women, 15 teachers took part in e-exam. Participation in the study was voluntary. An anonymus questionnaire survey. E-questionnaire consisted of 58 statements in 5 thematic domains, 5 step Likert scale. Links to the questionnaire were placed on an external server, which ensured anonymity. Reliability assessment of the questionnaire: Cronbach's Alpha coefficient. Analysis of significance of differences between Groups 1, 2, and 3: non-parametric Kruskal-Wallis test, $\alpha$=0.05. Among the study groups, statistically significant differences of opinions and attitudes towards e-exams concerned the following: phrasing questions that would be impossible to phrase in the case of a traditional pen-and-paper test.

**Keywords:** E-assessment, Quality of assessment, Modern technologies, Health sciences students, University teachers, Attitudes

## COMPETITIVENESS AND GROWTH OF SMES IN THE CONTEXT OF INTELLECTUAL CAPITAL AND THE KNOWLEDGE

*Juraj Tomlain, Jakub Recicar*

The authors try to describe details of already known theoretical background of the knowledge, wisdom and the intellectual capital of the organization in the introduction. Following main part of the paper is based on the practical empirical research in real conditions. There are evaluated several aspects by feedback from the small and medium enterprises related to the implementation and using knowledge processes in their conditions. The results of the research aim to the positive approach in the field of work with and using knowledge.

**Keywords:** Intellectual capital, Knowledge, Enterprise growth, Competitiveness of SMEs

## COMPLEX NETWORK OF SOCIAL NETWORK TAGS

*Ilker Türker, Yasemin Sari, Berna Yenigün*

Complex network studies, as an interdisciplinary framework, span a large variety of subjects including social media. Having the “universality” property, majority of the complex networks display common structures as a result of the underlying self-organizing principles. In social networks, several mechanisms generate miscellaneous structures like friendship networks, mention networks, tag networks etc. Focusing on tag networks (namely, hashtags in twitter), we constructed a tag network having hashtags as nodes, where the co-occurrences of these tags in a single entry define the links connecting them. We observed that the universal properties of the networks like small-world property, clustering and scale-free degree distribution is also observed in the network of social network tags. We also presented the visualization of this network provided by the software Gephi.

**Keywords:** Complex networks, Social networks, Scale free networks

## COMPUTER-ASSISTED ACADEMIC LITERACY DEVELOPMENT: GETTING STARTED

*Sanet Steyn, Zander Janse Van Rensburg, Jean Du Toit*

Given the challenges South African universities face when it comes to the levels of academic literacy of both prospective and enrolled students, additional aids for improving individual skills cannot go amiss. Although some academic literacy skills are part of the Home Language and First Additional Language curricula - as cited by other studies that are currently underway - these skills are, it would seem, underrepresented in assessments and examinations in high school. The proposed project aims to investigate the possibilities of creating a computer adaptive learning system that specifically focuses on the improvement of spelling and academic vocabulary acquisition, but could potentially be used to develop a

wider range of academic literacy skills. By creating a range of interventions that would be staged from as early as grade 8, this would not only provide us with an instrument to help hone these skills but also provide us with invaluable insight into the individual needs and differences of students when acquiring these kinds of skills. The project can be divided into a number of stages and this paper will focus on the first of these, i.e. investigating the diagnostic capabilities of tests of academic literacy, such as TAG and TALL, as well as tests that are currently in development (TALA and TOGTAV), and how their construct specifications can then be used to create long-term interventions for specific skills. This will form the foundation for creating a new electronic testing program that is able to mark tests, store individual test takers' data, assign levels of ability to a number of sub-sections and prescribe certain interventions, whilst collecting and analysing test and item performance data for quality control and refinement. Such a program would therefore be valuable to test developers and course designers alike. Once this software has gone through beta testing, this can be incorporated into the second stage of this project: the development of a computer adaptive course for academic language usage, starting with vocabulary acquisition and spelling skills.

**Keywords:** Academic literacy, Computer-assisted language learning, Literacy interventions, Language testing

## CONSTRUCTING STUDENTS' MATHEMATICAL KNOWLEDGE BY INTEGRATING INTERDISCIPLINARY LEARNING ACTIVITY TASK

*Hajah Umisuzimah Haji Mahanin, Masitah Shahrill, Abby Tan, Mar Aswandi Mahadi*

This study investigated the use of interdisciplinary learning activity task to construct students' knowledge in Mathematics, specifically on the topic of scale drawing application. The learning activity task involved more than one academic discipline, which are Mathematics, English Language, Art, Geography and integrating the Brunei Darussalam national philosophy of the Malay Islamic Monarchy. A quantitative method using a pre-experimental design focusing on one-group pre- and post-test design was used for this Study. The participants were selected from a convenient sample of 43 Year 9 students in one of the government secondary schools in Brunei. The findings were also triangulated with the students' collected reflective journal artefact documents. Each student journal was analysed using the identified learning activity stages within the RBC-model, where the R denotes Recognising, B is Building with and C means Constructing. The results showed an improvement in the students' achievement, and they were able to construct the mathematics knowledge by means of collaboration among group members.

**Keywords:** Learning activity, Secondary mathematics, Interdisciplinary

## CONTENT ANALYSIS OF ARTICLES PUBLISHED IN SSCI EDUCATIONAL JOURNALS IN THE FIELD OF SCIENCE (2010-2015)

*Selçuk Arik*

The purpose of this research was to investigate articles that have been published in SSCI Educational Journals at the field of "Science" between 2005 and 2010 years. Inclusion criteria for this research were; between 2005 and 2010 years, published in "Education and Science", "Educational Science: Theory & Practice", "EURASIA Journal of Mathematics, Science & Technology Education" and "Hacettepe University

Journal of Education", Turkish and English articles. This research study was designed as a descriptive content analysis. The including articles were selected by purposive sampling methods. The research analysis criteria were; publication year, keywords, the number of authors, research field, research method, research design, data analysis methods, sample size, sample study level, data collection tools and data analysis software. The study is continuing so findings and conclusions of the study will be presented later.

**Keywords:** Content analysis, SSCI educational journals, Articles, Science

## CONTENT ANALYSIS OF CHARACTER "BAATTIN" WITHIN THE FRAMEWORK OF NEW MEDIA AND SOCIAL MEDIA CONCEPTS

*Nasif Ali Ünügür*

New media is one of concepts summarizing age of today, and contains innovations about satellite, mobile, Internet technologies. The concept includes web and social media, comes to the fore from the 1960s and after. Especially in the Internet developments provide new opportunities, environments and communication areas to consumer/user. Communication culture has changed and prosumer (the consumer who can produce content) concept has emerged with the phase of Web 2.0 social media platforms; primarily Facebook, Twitter and Youtube. Thanks to social media platforms, content sharing is becoming more popular and some of themes and topics is becoming the trend. Advantages of social media -such as mobility, interactivity, communication, democratic (symmetric) operation- speeded up this process. Baattin cartoon is one of content becoming trend, has influenced by the characteristics of the media in question, has estranged from the original by producing again and again, has become no profile/anonymous. "Baattin" character created by Uğur Gürsoy, has gained new agenda and discourse according to the needs and demands of users. This study aims to analyze character of "Baattin" in the most followers "Baattin" accounts on the Twitter platform. The first three Twitter accounts were studied with content analysis and theme and sub-themes has been identified. The creator of Baattin character, Uğur Gürsoy has lost control on his own cartoon and "Baattin" has become anonymous. With quantitative and qualitative themes and sub-themes of the character have been studied to evaluate Baattin's agenda. The discourse of popular statements with character's references have been analyzed within the framework of the shares, likes and followers statistics on Twitter.

**Keywords:** New media, Social media, Baattin, Content analysis

## CONTROLE OF THE SEASONALITY OF THE SEXUAL ACTIVITIES IN THE ARAB BEARD HORSE

*Ouennes Houria, Houssou Hind, Afri Bouzebda Farida, Derouiche Luisa, Rebai Samia, Prof.bouzebda Z*

The equine species is caracterized by a seasonal sexuall activity, this last is clearly visible mainly while the increasing days(summer – spring) (Clay et al .. 2012; Boyd et al.. 2006) from April till the end of August (Sendel.. 2011). The control of the seasonality of the testicular function in the Arab Beard horse , through the analysis of the evolution of testicular rmeasurements, of the spermatic production and hormonal dosage (Testosterone), is important to determine it objectively for the management of the reproduction equin livestock, or in a perspective of sperm's maximum production for the artificiall insemination. This study is applied at the extreme Algerian East, it concerned six horses at the average age of 9 years, from the race of Arab Beard, for a reason of an exam per a month and while a period of 12 months. The

measured criterions are: The testicular measurements (ls ,ltg ,ltd,H ,LTD ,LTG ,LM); The testicular characteristics (VT,PT,PA,PPT) ,The spermatic production (DSO, DSP) are calculated from a specific formulas and the testosterone's dosage (Testo) , it didn't record any significantly influence (P> 0.05) of modifications due to the season, with an average of amounts for every studied settings ls:9.00±0.60cm, ltg:5.53±0.35cm, ltd:4.69±0.45cm, H:9.16±0.85cm, LTD:7.45±0.63cm, LTG:7.70±0.50cm, LM:5.07±0.36cm; VT:191.45±28.09g, PT:498; 90±42.46g, PA:74.86g, PPT:424.04±36.30g,. DSO:3.83±0.67×106spz/ml, DSP:4.40±0.77±109spz/ml. And Testo: 0.73±0.32ng.These settings show that the most propitious period for the reproduction is situated between May and August; But with a peak for most of the measured characters in May. The results are interpreted and discussed.

**Keywords:** Algeria, Arab-Beard, Studhorse, Measurements, Testicle

## CORPORATE GOVERNANCE IN THE WESTERN BALKAN REGION WITH SPECIAL EMPHASISES TO THE REPUBLIC OF MACEDONIA AND THE REPUBLIC OF ALBANIA

*Brikend Aziri, Ibish Mazreku, Jeton Mazllami*

Corporations are of the most often forms of organizing a business activity. They are present in all parts of the world, although not to the same extent. Even besides the many joint characteristics of corporations, still they differ from each other in a great amount of aspects. The differences have to do with their size, type of industry in which they are active, way how they are internally organized. The term 'corporate governance' refers to the legal rules, institutional arrangements, and practices that determine who controls business corporations, and who gets the benefits that flow from them. The main rationale behind the paper is to provide an extensive comparative analysis of the corporate governance framework in the Republic of Macedonia and the Republic of Albania, both countries striving towards European integration that have achieved much in the field but still need to do much more to provide for a more comprehensive corporate governance framework.

**Keywords:** Corporation, Corporate governance, Republic of Albania, Republic of Macedonia

## CORRELATION OF SUSTAINABLE EMPLOYMENT AND RENEWABLE ENERGY POTENTIAL IN DEVELOPING COUNTRIES

*Altay Firat, Arif Sari, Ali Karaduman*

Many countries have begun to meet their energy needs with renewable energy resources due to a significant decrease in the reserves of fossil fuels used for energy production in the world. The rapid increase in country's populations, internal migration and various socio-economic problems caused by these migrations, lack of resources in the energy, education, and employment sectors in have led developed and developing countries seek for a new solution for energy production. One of the most important and significant problem is unemployment for the countries. In this study, the use of the variety of renewable energy resources by developing countries are discussed and contribution of renewable energy resources to employment is exposed with different job opportunities created through using renewable energy resources for energy production.

**Keywords:** Renewable energy, Economy, Education, Environment, Employment, Developing countries

## CREATING REAL LEARNING EXPERIENCES RATHER THAN TEACHING BASED ON THE TRADITIONAL TRANSFER OF MATHEMATICAL INFORMATION, AT COLLEGE LEVEL

*Elizabeth Mena Avilés, Ana Gema Guevara Aguilar, Ernesto Save Moreno, Roberto Rosas Rangel*

Innovation in Education is a must in the 21st century education around the world. TEC de Monterrey in México as a system, is working hard in preparing and making their teachers innovate and use new educational models. Teachers are constantly implementing new teaching and learning techniques, not only to have better teaching practices in all fields, but to build life skills in their students. Competences such as collaborative work, problem solving, leadership and critical thinking are some of the skills that are cultivated through these techniques. A group of Mathematics´ teachers at Tec de Monterrey Campus León in Guanajuato México, have been using challenges in class as a way to create real learning experiences by using technology, flipped learning, mystery stories to improve reading comprehension skills and mathematical knowledge. Mathematics lessons have changed from simply transferring extensive amounts of information to creating the conditions for students to develop long life experiences. In a preliminary survey about math lessons in our campus, more than 54 % of the total students in this project, mentioned that they find math courses in general very hard, tedious, mechanical and without challenges. This study suggested that students learned math faster and deeply in a dynamic and fun way, 91 % of students in the final survey answered that learning math in this way was more meaningful and enjoyable, improving the enthusiasm about learning math among students. Math scores went up in the groups that followed this new educational technique.

**Keywords:** learning experience, Dynamic, Innovation, Challenge

## CUSTOMER DATA SHARING: A PRELIMINARY ANALYSIS ON USERS' PERSPECTIVE

*Naciye Güliz Uğur, Merve Türkmen Barutçu*

In the last few years, personally identifiable information are increasingly being exchanged inter organizationally which involves ongoing aggregation of data about users visiting websites. This information helps organizations to achieve competitive advantage by better understanding their customers' online habits. In this study, we examine if internet users' awareness of their personal data being exchanged inter-organizationally effect their engagement with organizations. We used Lightbeam software in an experimental setting and our results from 71 participants confirmed the relationship between awareness and users future online behavior.

**Keywords:** Data sharing, Online tracking, Privacy concerns, Privacy awareness

## CYBER SECURITY AND OPEN SOURCE INTELLIGENCE

*Zeynep Büşra Kirencigil, Onurhan Yilmaz, Arif Sari*

The Open Source Intelligence (OSINT) is one of the most popular data transfer and intelligence technique used by intelligence services to gather information in cyber-world for variety of reasons including security issues. It is well-known that OSINT is used by variety of organizations and governmental bodies for gathering detailed information and intelligence for variety of decision making processes. Information

Security and Privacy has brought new debate with the rapid increase of social media trend since this tool is using a systematic method that generates information through resources such as Internet or social media. This research paper exposes different OSINT tools with different control mechanisms for the information gathered through different communication channels and the positive impact of cyber-security on this control mechanism for society.

**Keywords:** Open source intelligence, OSINT, Cyber security, Information security, OSINT tools, Social media

## CYBER SECURITY EDUCATIONAL CURRICULUMS IN TURKEY

*Onurhan Yilmaz, Zeynep Büşra Kirencigil, Arif Sari*

There are significant investments and developments raised on cyber-security education sector due to 21st centuries' developing cyber-technologies and country's cyber-security policies in developed and developing countries. These inevitable changes lead a significant reflection to country's sustainable employment policy by providing technical and academic staff in the field of cyber-security. This research paper is investigating different curriculums from variety of cyber-security educational institutions in Turkey on the basis of Turkey's Cyber-security policy and in order to conduct a comparative survey based on specific criteria, data collected from developed countries' cyber-security educational institutions programs to expose possible gap between developed and developing country's cyber-security educational policies.

**Keywords:** Cyber-security, Turkey, Curriculum, Employment, Cyber-security policy

## DECOMPOSITION RATE IN THE FOREST OF SCHOOL YARD: A DIDACTIC INTERVENTION

*Maria Kalathaki*

For the preparation of theoretical instruction of the concept of decomposition in nature, and the teaching research through an annual project for the paper decomposition rate in soil, utilized, in a Lyceum, variety of teaching tools and techniques. For the demands of the teaching, was searched the synonymous and linked terms to decomposition and decomposers into the Curricula of the Lyceum Biological courses and textbooks. Papers, sealed in perforated plastic bags, buried in the soil periodically, during the school year, and with their haul, dried, weighed and thus exported their weight reductions as result of the action of soil decomposers. During the decomposition are taking place many and varied changes relating to and affected by many factors. These are the effects particularly of the temperature influences the speed of the chemical reactions occurring in the degradable materials and on the microorganisms that carry out it, the effects of moisture, since water hydrolyzes biological macromolecules of the organic matter degraded to smaller, and generally any changes in the structure and synthesis of the molecules of the decomposing organic materials. The rate of reduction of the initial paper weight shows that cellulose degradation has different rates in different seasons. Decomposition was faster in the early autumn, when drought ceased to be a limiting factor and in late spring when the temperature no longer was a limiting factor. In Mediterranean climates, like Crete, where the sun and wet winters alternating with warm, long and dry summer, intense decomposing activity observed at the time of the high temperature associated with water availability, high soil moisture, and even the moisture preceded, that the chemical bonds in molecules of paper cellulose to weaken and break down readily.

**Keywords:** Paper decomposition, School project, Didactic research

## DESIGN AND IMPLEMENTATION OF CANBUS BASED PLC AND INVERTER CONTROL FOR AC MOTOR APPLICATION

*Ali Emre Kavur, Nail Akçura, Savaş Şahin*

Industrial automation machines with especially complex and precise systems require good understanding as well as unfaulty communications between smart modules. Although many industrial product manufacturers develop their own communication protocols, the fundamental of the protocols are nearly the same. CanOpen bus is one of the safest communication protocols for industrial communication and it is highly prone to mistakes. Depending on the education of future automation engineers, industrial communication protocol is one of the fatal topic at all due to the link between logic controllers, motor drivers and Human Machine Interface modules, etc. In this paper, an exercise set and syllabus for an industrial automation lecture for engineering faculty and applied

**Keywords:** PLC, CanBus, AC motor, Control laboratory

## DESIGN OF A PORTABLE WIRELESS ECG HARDWARE

*Sila Yilmaz, Mehmet Yüksekkaya*

ECG measurement is based on the electrical activities of heart and it is a very successful method for diagnosis and therapy follow up of the cardiac problems. ECG data can be collected for a short time 5 min - 1 hour or longer 10 hours – 2 days. Especially to determine how the heart responds to normal daily activity, ECG data should be taken for longer time periods. It is usually prescribed after a heart attack, to evaluate the response of the heart for new medicine and to diagnose arrhythmia. Conventional Holter ECG is used to monitor ECG for longer time periods. In this study we design and implement a simple, low cost, small and portable wireless ECG hardware. This hardware has all the necessary modules for an ECG device needs for data collection and it has a Bluetooth® module to send the data to a smart mobile phone, a tablet PC, or a computer. Using this hardware with a smart phone application ECG can be monitor longer and practical, and heart disorders can be diagnosed and pre-alert systems can be created.

**Keywords:** ECG, Portable ECG, Biomedical hardware

## DESIGN OF DRUM BRAKE AND MODELLING OF BRAKE FORCES

*Abdullah Turan, Rasim Çekik*

Brake system used to lower the speed, stopped or poised of vehicles by drivers is a concept in numerous fields of our life. Brake system, which is very important for security of life and property, should be designed in the manner that maintaining stabililite of the vehicles, slowing down or poising the vehicle as soon as possible. So, the performance of brake is significant for brake system.In this study, the design criteria that is kept private by vehicle manufacturer and commercial company caring about brake system is investigated in academic study and a proper design according to 71/320/AT brake regulations was aimed in brake system design of light commercial vehicle. In this study, design of drum brake in Fiat Fiorino Cargo vehicle was devised.

**Keywords:** Brake force, Drum brake, Brake test

## DESIGN OF THE "VIOLENCE" IN THE GAMES OF THE NEW GENERATION

*Ali Arici, Mehpare Tokay Argan*

Released with improved graphics and design elements the last term (and which will be released) games in new generation attracts attention theme of violence. The month of November 2013 which was launched in new-generation game consoles, PlayStation 4 and Xbox One, the game range is located in the "AAA" dominant violence is integrating the design of marketing strategies in the classroom with the productions. Game Studios who works for Sony (PlayStation 4) and Microsoft (Xbox One), use "violence"and its associations in the new generation games. Fantastic reality which are brought into the standard, and agitated seems appropriate to make psychological and sociological inferences. Antisocial and passive audience of the mass media (like said George Gerbner) and games with violence can create the effect of "mean world syndrome". Design of the playground and concept art violence is justified by concerns of ROI (Return On Investment). That technological fiction with augmented reality and gaming experience becomes normal. The study discusses "violence" in the new generation consoles -especially the status of AAA- games in the direction of this discourse and perspective. The research emphasizes elements of violence, sales figures of games and target audience reactions at the same time. Data were obtained by using the method of content analysis, considers and focus sales figures, console games' stories, their platforms, and promotional activities. The resulting table interpreted with McQuail, McLuhan and Veblen's mass communication perspective.

**Keywords:** New generation, Console games, Violence, Theories of mass communication

## DESIGN, SYNTHESIS AND EVALUATION OF METHOXYCHALCONE DERIVATIVES FOR ANTITYROSINASE ACTIVITY IN B16 CELLS

*Sini Radhakrishnan, Ronald Shimmon*

A series of methoxychalcone compounds have been synthesized. The structures of the compounds synthesized were confirmed by 1H NMR, 13C NMR, FTIR and HRMS. These compounds were then evaluated for their inhibitory activities on tyrosinase and melanogenesis in murine B16F10 melanoma cell lines. Two pyridinyl methoxychalcone compounds exhibited higher tyrosinase inhibitory activities (IC50 values of 10.6 μM and 12.5μM respectively) than the control kojic acid (IC50: 22.83 μM). Kinetic studies revealed them to act as competitive tyrosinase inhibitors. Both the compounds inhibited melanin production and tyrosinase activity in B16 cells. Docking results confirm that the active inhibitors strongly interact with mushroom tyrosinase residues. The current study portrays methoxychalcones with electrophilic character to be potent cytotoxic agents.

**Keywords:** Tyrosinase, Melanin, Docking, Cytotoxic

## DESIGNING EFFECTIVE PROBLEM-BASED LEARNING (PBL) PROBLEMS: THE SAMPLE OF MATHEMATICS COURSE

*Kemal Özgen*

Problem-based learning (PBL) is an educational approach that accepts problems in the center of learning process. PBL is constructive and student centered learning approach which is based on analysis, solving and discussion of a given problem. It is considered that problems are the most important component of PBL approach. Because learning starts with problems in this approach and it is aimed to that access knowledge and learning in problem solving process. In this regard it is said that we should considered more extensively on PBL problems. In other words, the effectiveness of the problem can be seen as an important component in success of this approach. Here we must focus on the basis of the following questions. What should be characteristics of effective PBL problems? How should be difficulty, complexity, structure and type of effective PBL problems? What sources and strategies for writing effective PBL problems? How is the evaluation of PBL problems? It is understood that all of these questions are critical cases for designing PBL problems. The purpose of this study is to focus on the importance, aim, quality and effective use of PBL problems. The broad scope of our attention in the design of PBL problems should be discussed on qualifications. Existing models in the literature for the design of PBL problems will be examined in this context. In this study, theoretical framework towards designing effective problems has been investigated in the context of mathematics course. Theoretical knowledge has been given for designing PBL problems in mathematics course. Moreover, it has been given concrete problems according to discussed theoretical framework of designing PBL problems in mathematics course.

**Keywords:** Problem-based learning, Problem, Mathematics

## DETERMINATION OF DYNAMICS BEHAVIOUR FOR A MULTI-STOREY BUILDING IN DIFFERENT EARTHQUAKE LEVELS.

*Kirtel Osman*

The scope of this study is to determine the dynamic behavior of multi-storey buildings under different earthquake levels. In this regard by taking into consideration the technical specifications of " DASK Earthquake Resistant Building Design Competition" which is organized every year by Natural Disaster Insurance Institution (DASK); technical, economic and aesthetic factors as well as models of the building demolition in earthquakes are the most important criteria of the design process. The analysis software SAP2000 is used for finite element analysis model of the superstructure after the design of multi-storey buildings model. In the analysis by entering to structure program the mechanical properties of Balsa wood which is determined in technical specifications of DASK is used as material. The three dimension superstructure is defined as a rigidly connected model in finite element program. İn the analysis of the strong ground motion in Istanbul Tall Buildings Earthquake Directives, three earthquake level is mainly used which are based on the design of high performance buildings. These are; the earthquake levels with 50% probability of exceedance in 50 years and the corresponding return period of 72 years D1, 50% probability of exceedance in 50 years and the corresponding return period of 475 years D2 and 2% probability of exceedance in 50 years and the corresponding return period of 2475 years D3. Each level of an earthquake respectively represents the probabilities which are occurring during the service life of buildings which are frequently but not very high intensity earthquake, rare but severe earthquake and the most severe earthquake which is buildings may be exposed to that. According to this earthquake effects the dynamic behavior of superstructure was analyzed and the seismic performance of structure according to the measured structural behavior parameters was comparative determined.

**Keywords:** Dynamic behavior, Earthquake effects, Finite elements

## DETERMINATION OF PKA VALUES OF SOME 3-ALKYL(ARYL)-4-[2-(3-METHOXYBENZOXY)-BENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

*Haydar Yüksek, Hilal Medetalibeyoğlu*

In this study, eight 3-alkyl(aryl)-4-[2-(3-methoxybenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-ones (3) which were synthesized by the reactions of 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with 2-(3-methoxybenzoxy)-benzaldehyde (2) (Medetalibeyoğlu, Yüksek, & Gürsoy-Kol, 2015). These compounds were titrated potentiometrically with tetrabutylammonium hydroxide in non-aqueous solvents (isopropyl alcohol, tert-butyl alcohol, acetone and N,N-dimethylformamide). The half-neutralization potential values and the corresponding pKa values were determined for all cases (Bahçeci et al., 2002; Bahçeci, Yüksek, Ocak, Köksal & Özdemir, 2002; Yüksek et al., 1997). Otherwise, the effects of solvents and molecular structure upon acidity were discussed (Bahçeci et al., 2002; Gündüz, 1988).

**Keywords:** Potentiometrically, pKa, acidity, 4,5-dihydro-1H-1,2,4-triazol-5-ones

## DETERMINATION OF PROPERTIES OF MARGINS USING FREE AIR AND BOUGUER ANOMALIES

*Ali Elmas*

Models of the gravity field of the Earth have gained importance not only in the geophysical fields, but also in the geodetic, oceanographic, and aerospace fields. Interests of geophysical engineering are to model the underground resources of the changes in the Earth's gravity field. Large-scale gravity anomalies and geoid anomaly come from the differences in density situated deep lithosphere. In this study, the analysis of the gravity anomalies of passive margins are made according to the Airy isostasy models. This analysis are made with the data commonly known as free air and Bouguer anomalies. Isostasy of improved or is determined by analysis of Bouguer and free air anomalies in the oceanic and continental regions. Both anomalies offer characteristic changes in the region that the balance occured or not in. For example, a tectonics margin to be passive is revealed that it consists of isostasy stability in the region Denser oceanic plate dives under the continental plate in subduction zones. Large earthquakes and active volcanism occur in these areas. They are active tectonic margins and isostasy equilibrium state is not formed. Transition occurs from continental crust to oceanic crust in a tectonic plate as for in the passive continental margins such as the eastern coast of North America and mentioned tectonic movements does not occur. In this study, whether tectonic margin is passive has been investigated on simplified models according to the Airy isostasy model.

**Keywords:** Gravity, Airy isostasy model, Bouguer anomaly, Free air anomaly, Passive margin

## DEVELOPING INSTRUCTION WITH REAL-TIME DATA

*Bülent Döş*

Determining student success in teaching process is an important situation as used in numerous learning models. Diagnostic and formative assessment is as necessary as summative assessment to monitor and to modify the instruction. Modifying instruction helps teachers to create qualified learning environment. Collecting real time data when instruction continues can be very valuable for teachers and students to develop the instruction. Accordingly the aim of this study was to investigate the effectiveness of the real time data on student learning. Quizizz web application was used as a real time data collection instrument. Quizizz is a web application makes tests more entertaining with gamification and can be used in classroom by students who have Internet connected mobile phones. Four weeks practice was carried out with Quizizz. 50 teacher candidates were participated to this study in 2015-2016 education year. The findings of the study showed that Quizizz web application made learning more permanent and entertaining. Besides this application enabled students to explore their misconceptions and misunderstandings and helped to correct immediately.

**Keywords:** Gamification, Quizizz, Real time data

## DEVELOPING WRITING SKILLS VIA BLOGS

*Müge Gündüz*

The main goal of English language teaching (ELT) is to develop learners' skills to communicate with other people in real world situations and to express themselves in English (Brown, 1987; Oxford, 1990; Yang and Chen, 2007) (quoted in Fageeh 2011, p.1). As Matheson (2004) suggests Web 2.0 technologies, including blogs, are presenting both teachers and learners with new horizons in the field of language teaching and learning and they can easily be adapted for ELT purposes. In this study, the participants were 1st year university students (n=30) who created their group blogs so that they could publish their posts on the topics selected in their blogs in order to share their ideas during their oral communication classes. Students interacted with their peers via blogs simply by reading and commenting on each other's blog posts. Further, the participants were engaged in face-to-face discussions during the class hours. This group work project, lasted for 8 weeks, used a blog as a computer-mediated tool to integrate technology in the classroom. The data was collected from the blog entries and a questionnaire administered at the end of the project in order to understand the perceptions of students on the use of blogs integrated into teaching. The questionnaire data were analysed in terms of "the effective use of blogs to enhance writing skills", "students perspectives of peer feedback" and "developing colloborative skills", as Vurdien (2013) did in her research study. Blog entires were also analysed in terms of MLU (mean length of utterance) and authenticity (whether participants used any daily language, idioms, etc.) to find out whether having opportunities to use the target language in a real environment enhance learners' writing skills. It is hoped that the findings of this study will provide some food for discussion on a number of pedagogical and theoretical issues.

**Keywords:** Blogs, Writing skills, ELT

## DEVELOPMENT OF THE CONCEPT CARTOONS TEST ON "GETTING TO KNOW THE CELESTIAL BODIES" SUBJECT

*Çiğdem Şahin, Elif Arikurt, Ümmü Gülsüm Durukan*

The aim of this study was to develop the concept cartoon test (CCT) on the secondary school 7th grade "Getting to Know the Celestial Bodies" subject. This study was carried out according to survey method. The sample of this study consists of 100 8th grade students of a boarding secondary school located in the district of Van. The CCT is different from the other tests such as academic achievement which consist of classic multiple-choice questions, conceptual understanding test consist of open ended questions. The CCT includes concept cartoons unlike the other tests. In the CCT, alternative concepts were presented trough cartoon characters' thought bubbles. There are four cartoon characters in the CCT. In two cartoon characters' thought bubbles were wrote opinions with alternative concepts. In the other cartoon character's thought bubble was presented scientifically explanation. In the fourth cartoon character's thought bubble left blank. In this way, the opportunity were given to students have different views from the cartoon characters' thoughts in the cartoon concept for writing their own views. Cartoon character that is thought bubble left blank was called as "you". The validity of the CCT was provided with expert views. Obtained data from the CCT were scored as 1 and 0 which are true answer was scored as 1 point and false answers or answers with alternative concepts are scored as 0 point. Cronbach alpha coefficient was calculated for the reliability of the CCT.

**Keywords:** Celestial bodies, Alternative concepts, Concept cartoon, Concept cartoon test

## DEVELOPMENTS OF SHOOT AND ROOT TRAITS IN DIFFERENT GROWTH STAGES OF COOL-SEASON CEREALS

*Hayati Akman*

This study was conducted to investigate shoot and root traits in tillering stage (TS) and full grain maturity stage (GMS) of cereal crops such as wheat (Triticum aestivum cv. Konya 2002), barley (Hordeum vulgare cv. Karatay 94), oat (Avena sativa cv. Seydişehir), rye (Secale cereale cv. Aslım 95) and triticale (Triticale cv. Tatlıcak). Field experiment was established as three replications in begining of spring. It was found that there were statistically significant differences between cereal crops in different growth stages terms of root length, root biomass, secondary root number, root/shoot ratio and root/total biomass percentage and tillering number, shoot biomass, kernel number and kernel weight. Root/ shoot ratio and root/total biomass percentage decreased noticably, while other agronomic traits of cereals significantly increased between TS and GMS. Barley was found to be highest shoot and root traits in TS, however oat was generally shown to be minimum among the cereals in TS out of root/shoot ratio and root/total biomass percentage, but being the highest in GMS. This study indicated that root and shoot traits of cool season cereals varied depending on species and growth stages.

**Keywords:** Cool season cereal, Growth stage, Shoot and root traits

## DIMENSIONAL ANALYSIS IN PASSIVE ISOLATION WITH ARTIFICAL BEDROCK FOR REDUCTION OF STRUCTURAL VIBRATIONS

*Fatih Göktepe, Erkan Çelebi*

In the developed countries, railway transport systems based on the high-speed train (HST) technology, which leads to discomfort noise, disturbing and the damaging vibrations on neighborhood residential structures near the track, are discussed. High frequency and large amplitude in structural vibrations generated by the cyclic train transits are formed by the characteristics of the soil medium. To alter the wave propagation mechanism of the local area affected from the dynamic loading, a rigid solid mass with ideal geometrical size and depth can be constructed into the soil under the track or the structure to be protected. As the result of this application, the adverse effects of vibrations on the superstructure systems can be reduced. The usage of the simulation applications based on numerical models to evaluate the wave propagation in the dynamic soil-structure interaction problems is becoming significant recently. In this study, an artificial bedrock as wave impeding barrier (wib), which is established below the structure to be protected from high speed train induced ground-born vibrations, is proposed. The geometry of the finite soil medium discretized from the infinite soil region, the effect of the boundary conditions and the local soil properties are considered as important governing parameters for the developed numerical model. Dissipation of the vibrational energy (radiation damping) on the truncate points of the proposed finite element model is taken into account by using special boundary conditions. Turkey's high-speed trains passing with a speed of V=250 km/h is simulated as the dynamic point load on the slab track in the numerical investigations. The linear elastic and elastic-perfect plastic constitutive soil model are utilized for the mechanical behavior of surrounding soil in order to assess the effects on the results. The effect of geometrical properties of the wib on the wave screening has been examined for passive isolation case by using the developed numerical model. The results have indicated that utilization of wib is effective in reducing structural vibrations.

**Keywords:** Passive isolation, Wave impeding barrier (wib), Dimensional analysis, Wave propagation, Finite element method

## DISCOURSE COMMUNITY CHARACTERISTICS AND E.S.P TEACHING/ LEARNING PREREQUISITES

*Khadoudja Belkhenchir*

The notion of “discourse community” has been widely used in different literatures in the 20th and the beginning of the 21st Centuries. Different scholars (Hymes, Fish, Swales, Lave and Wenger, etc.) have given their own definitions / interpretations of what ‘a community’ or ‘a discourse community’ is. Therefore, we shall try to investigate the various notions and definitions of ‘discourse community’ and its different characteristics, focusing mainly on the field of teaching E.S.P. Globalisation, the market economy and the development of different technologies have entailed new jobs for which the use of different foreign languages has become necessary. Algeria has always been aware that the goals of economic development cannot be achieved through the national language alone (Arabic), but together with the teaching/learning of various foreign languages at different levels of the educational system. At university level, through the teaching of English as a subject in Science Departments, and the introduction of the L.M.D reform, the Ministry of Higher Education aims at a better training with adequate qualifications that allow the students to join the workforce and satisfy the needs of the socio-economic sector. The aim from teaching L.S.P (in general) and E.S.P (in particular) is to answer the learners’ needs to become competent users of the target language to reach various purposes.L.S.P / E.S.P teaching addresses in most cases a restricted audience, a category of very specialised students who –after training and experience- will join a specific discourse community.In the present paper, we shall specify the characteristics of a discourse community and suggest some prerequisite conditions for teaching / learning ESP adequately.

**Keywords:** Community, Discourse Community, ESP teaching- learning

## DISTANCE EDUCATION IN SOCIAL WORK: PATTERN OF ANKARA UNIVERSITY

*Melahat Demirbilek*

Improvements in the information systems revealed the distance education programs as an alternative education model to the conventional methods which are executed face to face in the classroom. Distance education is an education program where the instructor and student are remote to each other in the sense of time and space and communicate with each other through the internet, whether contemporarily or non-contemporarily. As this education modelis exercised in the companies where the global competition is extreme and the personnel who are employed inhabiting in different cities and countries, it is also growingly exercised in the field of education. Online education is increasingly started to dominate in the undergraduate and post-graduate programs, where it is practiced through internet networks via computers or smart phones. The rapid improvements in online education have also affected the social work education in the universities and academies. Among the advantages of distance education, the following examples are appearing a few steps forward: low costs, enabling global education, allowing fast feedback (e.g. uploading homework online), allowing the individual to have education without leaving the residence and students accessing the system in their appropriate times. On the other hand, the disadvantages can be difficulties in assessment and evaluation of the students, effecting the socialization of the students in a negative way and security issues of saving the information. Because online education is relatively new in social work, many departments in the universities could not adopt virtual teaching. However, the number of the social work departments providing distance education tends to grow. Distance education in Ankara University, which is one of the universities offering education in the field of social work, is exercised in the non-thesis post graduate program. The main target of the program is to identify the procedures determining human welfare beside the points of main principle, theory, approach and methods of social work. Students registered in the program have the same rights of the students of Ankara University; the graduates from the program have the same rights with the graduates of the university's face-to-face conventional education program in the same field. Students who complete the program successfully are awarded with the post graduate diploma/degree of the Ankara University, Institute of Health Sciences, Department of Social Work.

**Keywords:** Social work, Social work education, Distance education

## DURATION ANALYSIS IN GRADUATE EDUCATION

*Nihal Ata Tutkun*

Duration analysis is a statistical method that examine the period of time until an interested event happens and determine the factors that influence this period. In duration analysis, data is analyzed by non-parametric (Kaplan-Meier method), semi-parametric (proportional hazards models) or parametric (parametric regression models) methods. In terms of design of data, measurements of variables and modeling, it is differ from standard statistical methods. Although it is widely known in health sciences, education sciences become one of the application field of duration analysis after the studies of Willet&Singer (1991) and Singer&Willett (1993). Since the dropout rate in graduate or doctorate degree educations is higher than the rate of undergraduate degree education, the analysis of education time in graduate studies gains importance in recent years. Expelled from the university, graduation or continuing education can be taken as an event of interest. Then the significant factors on education time are determined by using duration analysis methods. The studies about duration analysis in graduate education are examined by Booth and Satchell (1995), Rodwell and Neumann (2007), Eshghe et al. (2011), Ampawan and Jaeger (2011, 2012). In this study, the duration analysis methods are given and the studies in literature are discussed.

**Keywords:** Degree completion, Dropping out of school, Education time

## EDUCATION SYSTEM AND THE LANGUAGE DEBATE IN MALAYSIA

*Nur Daut*

The overall objective of this paper is to analyse the role of the national language which is known as Bahasa Malaysia in creating unity among the different ethnic groups in Malaysia. In particular, this paper would like to assess the degree of correlation between the use of national language in schools and a sense of patriotism as well as the level of unity among Malaysians. Malaysia which is a multi-ethnic and multi-religious society gained its independence from the British in 1957. The ethnic make-up of the country consists of ethnic groups such as the Malays, Chinese, Indians and others. Over the years, efforts have been made to integrate these diverse groups with the hope of creating a Malaysian nation. An important part of the nation building effort was focused on standardising the education system and introducing Bahasa Malaysia as the medium of instruction in schools replacing the English language. In recent years, there have been attempts to revive the English language by using it as a medium of instruction for specific subjects like mathematics and science in schools. This was partly due to the increased concerns by the government and public that the level of English language has significantly deteriorated among Malaysians which could lead to serious repercussions on the long term development and well being of the country. However, this policy which lasted for only two years was reversed as a result of critical debates among Malaysians. In this paper, I will illustrate how issues involving the national language vis a vis English are shaped by different ethnic and social groups' competing views. Based on the survey conducted among local university students, I argue that there is little correlation between the use of Bahasa Malaysia in schools and the level of patriotism and unity among Malaysians. Strengthening the English language is crucial if Malaysia wishes to compete with the rest of the world.

**Keywords:** Nation building, Language debate, English, Bahasa Malaysia, National unity

## EDUCATIONAL TECHNOLOGIES ENCOURAGING STUDENTS TO BE PRODUCERS NOT CONSUMERS

*Mustafa Koç*

Traditionally, students have been expected to consume instructional content delivered by course textbooks or teacher-developed materials. However, recent technological and pedagogical developments bring about fundamental changes in learning and teaching processes as well as in the role of students and teachers. Schools now offer student-centered environments and activities in order to support design, production and creativity. It is intended that students grow as individuals who are entrepreneur, adaptable, and effective problem solvers on the personal level and who contribute to economic growth through collaboration and participation on the social level. Therefore, there is a shift from students as consumers to students as producers in today's education. This transformation is indicated as a key mid-term (3-5 years) trend accelerating technology integration in both K-12 and higher education in 2014 and 2015 Horizon Reports published by New Media Consortium. This study firstly examines new technologies (networked technologies, social media, cloud computing, mobility etc.) and instructional approaches (constructivism, learning by doing, project-based learning etc.) that underlie such a transformation. Next, it introduces some technological tools (both hardware and software) that supports student creativity and production and discuss their educational potentials. Finally, it provides suggestions for educational policy and practices in order schools to keep up with this production-oriented transformation.

**Keywords:** Students as producers, New technologies, Creativity, Production-oriented education

## EFFECT OF DIFFERENT WATER TREATMENTS ON THE GRAIN YIELD AND YIELD COMPONENTS OF TEN DURUM WHEAT (TRITICUM DURUM DESF.) GENOTYPES.

*Guendouz Ali, Badri Yassine, Hafsi Miloud*

The main aim of the present study is to understand the impact of irrigation on grain yield and yield components. Ten durum wheat (Triticum durum Desf.) genotypes of diverse origin evaluated for three irrigation treatments [I0: no irrigation; I1: 20 mm irrigation at tillering stage; I2: 40 mm irrigation at heading stage]. The highest grain yield (6.6 t ha-1) was obtained under irrigation treatment (I2) whilst the lowest (5.8 t ha-1) was observed in the (I0) treatment. Water deficit decreased grain yield at the different growth and development stages, although the highest negative effect was observed in the I0 treatment. These grain yield reductions were 6 % and 12.4 % under the I1 and I0 treatments respectively compared to I2. In addition, Water limitation decreased the number of spikes per m² with 14.11% and 9.67 % in the I0 and I1 treatments compared to the I2.

**Keywords:** Durum wheat, Water stress, Irrigation, Grain yield

## EFFECT OF INSTRUCTIONAL MATERIAL ON STUDENTS' CONCEPTUAL UNDERSTANDING FOR ENERGY CONVERSION

*Güner Tural, Fatmagül Sağlam, Bayrak Ercan Bayraktar*

The aim of this study is to examine the effect of instructional material on students' conceptual understanding for energy conversion. Working group of the study consisted of 20 (10 control, 10 experiment) 9th grade high school students from a private study center. Conceptual understanding test developed by researchers was used as data tool. This test was applied to experimental and control groups as pre-test and post-test. Lecture method was used for control group. Steam engine instructional material was used in the experimental group. Energy conversion was visualized via this material. Data were analyzed via conceptual criterions as sound understanding, partial understanding, misunderstanding and no understanding. The findings showed that scientifically full correct responses of experimental group increased after application. But there wasn't increase for scientifically full correct responses of control group. It was concluded that the applied instructional material had a positive impact on conceptual understanding of experimental group students.

**Keywords:** Energy conversion, Instructional material, Conceptual understanding

## EFFECT OF METHANOL ON GEOTECHNICAL PROPERS OF CLAY

*Burak Görgün, Nazile Ural*

In this study, effect of the organic liquid on strength on kaolin and bentonite clay were studied. For both clay water's and methanol's optimum content was determined by standard proctor test. Atteberg' s consistency test and unconfined compressive strength test on samples prepared. In addition to because of investigated change of Zeta potential and Wavelength Dispersive X-Ray Fluorescence test.

**Keywords:** Soil strength, Zeta potential, Kaolin, Bentonite

## EFFECT OF SILICA FUME AND FLY ASH ON HIGH STRENGTH CONCRETES

*Cenk Karakurt, Yildirim Bayazit*

Concrete is widely used construction materials for several structures such as buildings, homes, dams, roads, and bridges due to its easy production and casting. The quality of this important construction material is influenced by different internal and external conditions during preparing and service life of the structure. Compressive strength is one of the most important property for structural concretes. This property can be increased with proper raw materials, lower w/c ratio and utilization of mineral and chemical admixtures in concrete mix design. In this study, it is investigated that how silica fume and fly ash can effect the physical and mechanical properties of high strength concrete. For this reason, cubic concrete specimens were produced in dimension with 15x15x15cm in order to determine the effect of fly ash and silica fume additive in concrete mixtures. 10% fly ash and silica concrete samples were produced by reducing the amount of cement 10% by weight. These samples includes four kinds of concrete that reference concrete, high strength concrete which includes silica fume, high strength concrete which includes fly ash and high strength concrete which includes extra cement. Mechanical property of concrete, is determined by compressive strength test. According to test results, it is seen that silica fume shows better performance when used in high strength concrete mixtures.

**Keywords:** High strength concrete, Silica fume, Fly ash, Compressive strength

## EFFECT OF USING 3D MODEL TO UNDERSTAND ELECTROMAGNETIC INDUCTION OF PHYSICS TEACHER CANDIDATES

*Güner Tural, Bayrak Ercan Bayraktar*

The purpose of this study is to examine the effect of using 3D model to understand electromagnetic induction of fourth grade physics teacher candidates. Working group of the study consisted of 15 physics teachers. Open ended five questions developed by researchers related electromagnetic induction was used as a data collection tool. This tool was applied to physics teacher candidates before and after the application. Answers of physics teacher candidates to open-ended questions were analyzed via criterions as sound understanding, partial understanding, misunderstanding and no understanding. After implementation also an interview was conducted about physics teacher candidates' opinions related to implementation. The results of the open-ended questions showed that answers of teacher candidates concentrated in no understanding category before application and in sound understanding category after

application. Interview results revealed that; opinions of teacher candidates related to implementation via 3D model was positive about better understanding the electromagnetic induction, concretization, visualization and attract attention to subject.

**Keywords:** 3D model, Electromagnetic induction, Physics teacher candidates

## EFFECT OF WELD CURRENT ON THE MECHANICAL PROPERTIES OF RESISTANCE SPOT WELDED TWIP STEEL

*Fatih Hayat, Sadettin Şahin, Onurcem Çölgeçen*

In this study, the effects of weld current on the tensile tensile-shear strength of TWIP steel steel sheets joined by spot welding were investigated. Weld processes were performed by using 5, 7, 9, 11 and 13 kA weld current. The microstructure of the welded materials was evaluated. The hardness profiles were also determined. Experimental results showed that tensile shear loading bearing capacity and hardness of both weld and heat affected zones increased for increasing weld current. Weld nugget diameter extended by increasing weld current, so tensile shear load bearing capacity increased. Tensile fracture behaviour of the samples was evaluated.

**Keywords:** TWIP steel, Welding, Mechanical properties, Microhardness

## EFFECTIVENESS OF GREEN CHEMISTRY WITH SCIENCE WRITING IN ENHANCING UNDERSTANDING CHEMISTRY CONCEPTS

*Sheila Shamuganathan, Gilbeth Andrew John, Mageswary Karpudewan*

In this study attempt was made to investigate the effectiveness of green chemistry with science writing heuristic (SWH) enhancing understanding of chemistry concepts among pre-university students. Students enrolled in the Matriculation Colleges in Malaysia are the top notch students in the country. For this purpose data has been collected from 208 pre-university students in the study as an experimental or control groups. The experimental group was taught the content using SWH instructional approach while the control group was taught the same content using traditional approach. The data was analysed using ANCOVA and findings obtained from the quantitative analysis on understanding of chemistry concepts reveals that there is a significant change in understanding of concepts ($F(1,204) = 99.549$, $p < 0.05$ partial eta squared =0.335 which favours the experimental group. These results revealed that the green chemistry with SWH can improved their chemistry concepts understanding. The implication of the study with respect to pre-university education has been provided with some highlights on the limitation of the study well as contribution, recommendations and suggestion for further research.

**Keywords:** Green chemistry , Chemistry concepts, Science writing heuristic

## EFFECTS OF "THE SOCIAL RESPONSIBILITY FOR HEALTH" PROGRAM ON HEALTH PERCEPTION, ALTRUISTIC AND EMPATHIC SKILLS OF THE ADOLESCENTS

*Ayşe Şengel, Kamer Gür*

This study was conducted as a pretest-posttest controlled half experimental study in order to determine the effects of "The Social Responsibility for Health" (SYSS) program on health perception, alturistic and empathic skills of the adolescents. The study was carried out with 120 students studying in a private high school of the Ministry of National Education (MEB) in İstanbul during the academic year 2014-2015. We did not choose sampling, instead, we targeted the entire population (N = 120) and the study has been completed with 116 students. The study started of the 116 students (n = 56) in the control group, and the others (n = 60) in the intervention group. In the first week of 14-weeks-long study, SYSS program was introduced to all students and the pretest was implemented. During the next 12 weeks, SYSS program was applied to the intervention group. In the 14th week, posttest was implemented to all students. Data collection tools used in the study are 26-question Information Gathering Form, Perception of Health Scale, Empathic Tendency Scale, Altruism Scale. The data obtained from the study was analyzed using SPSS. Descriptive statistics in the evaluation of the data, Mann Whitney-U, Wilcoxon, Chi square analyses were used. In the frame of the findings of this study, with the SYSS program applied, in the intervention group; health perception, altruism and empathic skills levels were raised. This study, applied as the first social responsibility project under the leadership of a school nurse in our country, is an example of an effective program that will be a guide for school nurses. According to these results, SYSS program is recommended to be given place in school curriculam.

**Keywords:** Scocial responsibility, Adolescent, Health perception, Altruism, Empathy

## EFFECTS OF GNRH OR HCG ON OVARIAN RESPONSE IN PMSG-SUPEROVULATED OULED DJELLAL EWES (ALGERIA)

*Farida Afri-bouzebda, Ramzi Lamraoui, Zoubir Bouzebda*

Superovulation plays an important role in the embryo transfer (ET) programs. The objective of this study was to evaluate the effects of Gonadotropin-releasing hormone (GnRH) or human chorionic gonadotropin (hCG) treatment on ovarian response in PMSG-superovulated ewes. Intravaginal pessaries containing 40 mg fluorogestone acetate (FGA) were inserted in all ewes (n=14) and remained in situ for 14 days. Two days prior to pessary removal, all ewes were treated with 1000 IU of PMSG. On the day of sponge removal (day 0), the females were randomly assigned to 3 treatments. The first group (T1; n=3) received no further treatment, while second group (T2; n=5) treated inter-muscular with GnRH (100 ug) at day 1, finally the third group (T3; n=6) treated inter-muscular with hCG (500 IU) during days 0-2. On day 8, laparotomy was performed to assess numbers of corpora lutea (CL) and anovulatory follicles (AF). Blood samples were collected for analysis of serum progesterone (P4) using radioimmunoassay (RIA) method. The results obtained for first, second and third group were in number of CL (6.33±1.15, 9.00± 1.58 and 10.50± 5.54), number of AF (2.00 ± 3.46, 3.60 ± 6.50 and 4.16 ± 5.70), then the levels of P4 (5.75 ± 4.45, 13.97 ± 4.67 and 13.22 ± 6.80 ng/ml), respectively. In conclusion GnRH or hCG treatment post sponge removal increases number of CL and improves luteal function after PMSG-superovulatory treatment. However, it didn't reduce the number of AF.

**Keywords:** Algeria, Anovulatory follicle, Corpus luteum, Ouled djellal ewe, GnRH, hCG, Progesterone, Superovulation

## EFFECTS OF OUTDOOR ENVIRONMENTAL CONDITIONS ON THE COMBUSTION CHARACTERISTICS OF SESSILE OAK WOOD

*Ş. Şadiye Yaşar, Musa Atar, M.said Fidan, Mehmet Yaşar, Hamza Çinar*

Substantial developments have been made in the improvement of usability and economical applicability of wood materials, which are natural products that can resist environmental adversities. The present study was conducted in order to determine the effect of outdoor environmental conditions on weight loss and combustion temperature of a wooden material. Samples of sessile oak (Quercus petreae Lipsky), prepared as dictated in ASTM–E 160-50, were impregnated using tanalith-E or wolmanit-CB as reported in ASTM–D 1413–76 followed by being varnished using synthetic or water-based products. The varnished products were left outdoors for 1 year. The highest weight loss occurred in samples that were impregnated using wolmanit-CB (87.2%) and the lowest weight loss was observed in the samples that were left indoors (74.6%). The highest heat source based combustion temperature was determined for the samples left indoors which were impregnated using tanalith-E and varnished using water-based products (530.1 oC), while the lowest temperature was determined for the indoor products that were impregnated with wolmanit-CB (427.4 oC). The highest temperature of combustion in absence of a heat source was determined for the indoor samples that were impregnated with tanalith-E (637.4 oC) whereas the lowest temperature was observed for the indoor sample group that was impregnated using wolmanit-CB and varnished using water-based products (516.9 oC). The indoor samples yielded more distinctive results with respect to the temperature of combustion with both the highest and the lowest temperatures of combustion identified among the indoor sample groups.

**Keywords:** Oak, Combustion, Outdoor conditions, Varnish, Impregnation

## EFFECTS ON EMERGENCE AND SHOOT BIOMASS OF COOL SEASON CEREALS OF DAIRY INDUSTRY SLUDGE

*Hayati Akman, Muhammed Kamil Öden*

This study was conducted to find out responses of dairy industry sludge on emergence and biomass of cereal crops such as Triticale cv. Tatlıcak, Secale cereale cv. Aslım, Hordeum vulgare cv. Karatay 94 and Triticum aestivum cv. Konya 2002 in greenhouse conditions. In the study, seeds were sown to pots (14 cm long and 14 cm diameter) that were additionally mixed with seven different sludge proportions (0;control, 12.5, 25, 50, 100, 200, 400 g) to soil equal weight as three replications. It was found there were statistically significant differences between cultivars and applications and also in cultivar x application interaction. Emergence percentage of barley was not affected in terms of sludge applications while lowest seedling emergence of triticale, rye and wheat was found in application of mixture of 400 g /pot sludge. Biomass of cereals gradually decreased after 50 g/pot sludge application to soil depending on increase amount of sludge.

**Keywords:** Cereal crops, Dairy sludge, Emergence, Biomass

## ENGINEERING MATHEMATICS REVISITED

*Bjarne Schmidt*

Mathematics is a basic subject in any engineering program, but nevertheless many engineering students find mathematics hard when they enter university, and quickly they lose motivation for the subject. In addition the relevance of what is taught is often not clear to students when they are taking their math classes, and this is not improving students' motivation either. It is a dilemma that while society shows an increasing demand for engineers, the students who are willing to study at the engineering schools lack the basic mathematics skills, that the institutions would like them to possess. Over the past six years we have monitored students' math skills at enrollment, indicating that this is not a temporary challenge - on the contrary it seems to get worse! This work-in-progress describes how some of these challenges with engineering mathematics have been addressed at the Sonderborg campus of the University of Southern Denmark. This includes (a) an online test for new students to find out whether they have acceptable math skills to begin their study, (b) offering a revision course to students prior to study start, (c) a strengthened focus on doing calculations by hand instead of using computer or advanced calculators, (d) using voting tests and peer instruction on a regular basis at the lectures, (e) making pencasts to supplement the textbook and the lecture notes, and (f) letting hand-in assignments and tests carried out during the semester give partial credit at examination. Preliminary results show that the proposed strategy has a positive influence on students' motivation for working with engineering mathematics. The different initiatives have been well received by the students with high ratings given in the teaching evaluation, even though they still find the subject hard. Further studies will investigate whether the learning outcome has increased as well.

**Keywords:** Skills at enrollment, Motivation, Didactics, Assessment

## ENGLISH LANGUAGE AS A MEDIUM OF INSTRUCTION IN TURKISH UNIVERSITIES: THE STUDENTS' VIEW

*Andreas Kotelis*

The paper presents how university students in Turkey, perceive the fact they take their education in a language other than their mother tongue. specifically the study explores the issue through a basic obstacle/opportunity distinction, trying to establish a positive or negative correlation the students might give to the foreign medium of instruction. The paper presents the results of a survey that took place at zirve university in gaziantep turkey, among Turkish senior students who study in departments that use english as medium of instruction.

**Keywords:** English education, Turkey

## ENHANCING FLEXIBLE MANUFACTURING COMPETENCE

*Sadudin Ibraimi, Rasim Zuferi, Gadaf Rexhepi, Veland Ramadani*

One of most important aspect that modern technology has managed in area of manufacturing systems and technologies are Flexible Manufacturing Systems. In a corporation, the aim is to hold inventory levels at a minimum level, to plan production by considering a lot of parameters, manufacturing high quality products and manufacturing the desired goods on time, place and at an appropriate cost. Flexible Manufacturing Systems has added some advantages to corporations, due to its manufacturing and marketing advantages. An important component in design and development of flexibility in a production system is the establishment of appropriate flexibility measures. A flexibility measure or a set of flexibility measures is used to determine the level of flexibility in a typical production system at a given situation. Although there is economical un-stability, insufficient industry structure or to high inventory levels, high technologies must be used to respond to changing demands, to produce high quality goods, to manufacture products at appropriate price in Macedonia. Macedonia needs to use and manufacture these modern technologies to compete and survive in international markets.

**Keywords:** : Flexible manufacturing system, Production system, Operations management, Advanced manufacturing technologies, Competences

## ENVIRONMENT EDUCATION IN TURKEY

*Yüksel Ardali, Nurdan Gamze Turan, Nükhet Konuk*

There are ongoing training requirements of people throughout their lives. This requirement is at an extreme level with regard to the environment. Firstly, we can summarize the world's cultural and ecological stages of human development. Early hunter-gatherers are controlled by nature. Next gatherer-hunters affect the environment, but they cannot control. Agricultural people are against to the human nature and human began to control. Industry people increased to control over nature and the nature are adversely affected the nature. The man of the world that it is in harmony with nature and understanding of the nature to intervene. The environmental movement in Turkey was begun in the second half of the 1970s. During this period, for the first time, if not powerful and effective, although it is not in the name of environmental values begun to be replaced removed to reveal the reactions. Environmental education; improving the environment in all sectors of public awareness, grown in environmentally conscious individuals to ensure the settlement of persistent behavior in these individuals, protection of naturally, historical and cultural value, ensuring active participation in environmental activities is defined as taking part in the solution of environmental problems. Article 56 of the 1982 Constitution: "Everyone has the right to a healthy and balanced environment, improve the environment, protect the environmental health and to prevent pollution of the environment and citizens is the duty of the state" is called clearly contained in our Constitution, the environment we live under this Article, the right to live in a more beautiful setting, it is necessary to ensure that the owners of all individuals. Environmental consciousness of the intellectual, emotional and behavioral dimensions are. In other words, environmental awareness; environmental decisions, the principles, the idea that contain comments, the behavior is transferred to life these ideas and is composed of various emotions regarding all this. Such development of a comprehensive concept is not, of course, it consists of a simple process. gained momentum with the introduction of human beings interacts with the environment this process continues throughout life. In parallel to developing environmental consciousness, personality development is affected by the interaction of various factors.

**Keywords:** Education, Environment, Environmentalist

## ESTIMATING THE QUANTITATIVE NORMS OF PHYSIOLOGY TEST EXAM FOR MEDICAL STUDENTS: ANALYSIS BASED ON THE RESULTS OF PHYSICIAN FINAL EXAMINATION

*Mariusz Panczyk, Łukasz Samoliński, Aleksander Zarzeka, Jarosława Belowska, Joanna Gotlib*

Multiple choice questions (MCQs) are the most frequent method of evaluation applied when assessing the learning outcomes of the students of medicine, particularly in the area of basic sciences. However, exam tests typically used in medical education are not normally standardised tool, which makes it difficult to determine any quantitative norm for them, i.e. the cut-off score of passed/failed. An attempt to assess an optimal passing score for the test exam in Physiology designed for the students of the second year of medicine at the Warsaw Medical University (MUW). The results in the exam in Physiology of four years of students (N = 1425) who are taught at the faculty of medicine at MUW between 2007/08-2010-11 were analysed. The results in Physician Final Examination (PFE) were used as the external criterion following the completion of medical studies. Chances of passing PFE (odds ratio, OR) were calculated using the model of non-linear estimation of logistic regression. The score obtained in the exam in Physiology was used as a predictor. The statistical cut-off point was calculated using the methods of statistical description and Receiver Operating Characteristics (ROC) curves. All calculations were performed in a STATISTICA 12.5 software, where the level of relevance assumed a priori was $\alpha = 0.05$. The results of logistic regression show that the score a student achieved in the exam in Physiology is a relevant predictor of success while taking the PFE exam at graduation (OR = 1.074; P

**Keywords:** Educational measurement, Validation, Assessing student achievement, Medical education

## EVALUATION OF AN ANKLE-FOOT-ORTHOSIS DESIGNED FOR CHILDREN WITH SPINA BIFIDA: A GAIT ANALYSIS STUDY

*Hasan Kemal Surmen, Ekin Nazif Akalan, Yunus Ziya Arslan*

Spina bifida is a birth defect which is caused by the incomplete closing of the backbone and membranes around the spinal cord. Children with spina bifida have motor skill problems, as well as problems with a various level of attention, insensitivity, memory and organization. Motor skill problems especially influence the ambulation patterns of children. In order to control the ankle motion and provide an optimal gait skill in patients with spine bifida, different types of ankle-foot-orthoses (AFOs) were designed and manufactured. AFOs are the externally applied assistive devices and prescribed to the patients with neuromuscular dysfunctions to improve the abnormal lower limb motor functions. In this study, a patient-specific, modified AFO was designed and manufactured in accordance with both the patient's need and the results of the mechanical analysis of the conventionally produced AFO. To quantitatively observe the effect of the novel design AFOs on gait patterns of patient with spina bifida, gait analysis of a young patient was carried out. In the analysis, temporospatial, kinematic and kinetic parameters were measured. Gait recordings were conducted for three different cases, i.e. walking i) without orthosis, ii) with classical design AFO and iii) with newly designed AFO. Merits and shortcomings of the novel AFO were comparatively evaluated and discussed in the paper.

**Keywords:** Ankle-foot-orthosis, Finite element analysis, Gait analysis, Spina bifida

## EVALUATION OF EDUCATION QUALITY ACCORDING TO THE REGIONS IN TURKEY BY USING SMAA-2 METHOD

*Asli Çaliş, Cevriye Temel Gencer*

Quality education raises the life standards of individuals and societies. Therefore, before anything else a country should provide a quality and healthy education for its individuals to grow and develop. Turkey has made enormous strides in education compared to ten years ago. Enrolment rate has increased at all levels and the number of students per teacher has gradually decreased. However, this ratio is not dispersed homogeneously between the regions. In this study, it was aimed to rank the twelve regions in Turkey created by statistical factors such as population, geography and economy according to criteria which are net enrolment rates, the numbers of students per teacher and per class by using Stochastic Multi Criteria Acceptability Analysis-2 (SMAA-2) method which is one of the Multi Criteria Decision Making methods and the results were interpreted.

**Keywords:** Education quality in Turkey, Multi criteria decision making, SMAA-2

## EVALUATION OF MECHANICAL PROPERTIES OF P265NB STEEL BY WELDING WITH DIFFERENT METHODS

*Ahmet Gördebil, Mustafa Taşyürek, Necmettin Tarakçioğlu*

In this study, mechanical properties of the weld zones for laser-welded and MAG welding P265 NB steels have been searched experimentally. Materials in compliance with P265 NB Standard was supplied and welded on butt welding points by means of 2.8 kW power CO2 laser machine. It was revealed that cutting machines most commonly used in industry could also make welding with some modifications. P265 NB materials are used in the production of LPG tanks. After making radiography, hardness measurement, three point bending tests and mechanical properties of welded samples were searched. While many welding defects detected in the MAG welded samples there was no defect in the laser welding samples.

**Keywords:** Laser welding, Three point bending tests, Welding with cutting head, P265 NB steel

## EVALUATION OF RESEARCH PROJECTS OF UNDERGRADUATE STUDENTS IN AN ENGINEERING DEPARTMENT USING TOPSIS METHOD

*Uğur Özcan, Ahmet Doğan, Ismet Söylemez*

Evaluation of research projects of undergraduate students in an effective manner is important to rewarding student success in technical education at Engineering Departments. Research project of undergraduate students evaluation is mainly concerned with evaluating a number of research projects and then to grade them for rewarding. For this purpose, in this paper, an effective method for evaluating and to grade research projects of undergraduate students is proposed. A Multiple-Criteria Decision Making (MCDM) methodology to evaluate the research projects is suggested. Firstly, the criteria that will be used in the evaluation are determined and then those criteria are weighted in terms of their importance. In order to determine the degree of importance of each research projects the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) method is used.

**Keywords:** Technical education, Evaluation of research projects, MCDM, Ranking projects, TOPSIS

## EVALUATION OF THE LEVEL OF HARMONIZATION OF CLOTHES

*Svetlana Kuleshova, Alla Slavinskaya, Oksana Zakharkevich, Galina Shvets*

The life cycle of fashion items are shortened and the items are being replaced within a very short period to fulfill consumers' needs. Consumer needs can be met by determining their functional, expressive, and aesthetic requirements. Aesthetic garment quality is one of the most important problems of the apparel design in Ukraine. This is complex problem because it is relaited to all stages of the design process. Aesthetic quality is usually achieved as a result of harmonization an outfit's colors, shapes, fabrics and proportions. Harmonize means to bring things into harmony, or to make things compatible. However, the ability to harmonize an outfit's features is depended from designer's personality. Some professionals have a natural eye for it, having a so-called "sense of style." This is not the same as "fashion sense" – knowing what is in vogue – but a feel for line and design. The lack of dress-sense could make the garment uncompetitive, though the garment's fitting is perfect. Thus all kinds of garments must have enough aethetic quality level. Besides that fashion designer needs to have some numerical methods to evaluate the level of harmonization in order to reveal the weaknesses in the garment design. Method of complex assessment of aesthetic quality in clothes design is based on the calculation of the weighting factors of unit indexes of aesthetic quality. Compiled list of indexes which characterise aesthetic garment quality is represented in the table form. In order to obtain formal methods for the evaluation aesthetic quality and harmonization an outfit's features we calculated the weighting factors of the indexes of the harmonisation aethetic garment quality. Sequence of actions for the evaluation a level of harmonization is presented on example of women's outfits, particularly dresses.

**Keywords:** Harmonization, Aesthetic quality, Index, Aesthetic requirements

## EVIDENCES OF UNDERSTANDINGS AND MISCONCEPTIONS OF GRAPHS AFTER EXPLORING USING TECHNOLOGY

*Terri L. Kurz, H. Bahadir Yanik*

Twenty-four Science, Technology, Engineering and Mathematics (STEM) preservice elementary teachers enrolled in a large public university in the southwest United States explored position/time graphs using graphing calculators and simple, inexpensive motion detectors. Using pre-programmed position/time graphs and creating their own distance/time graphs, the preservice teachers worked in groups to match, generate and explain a variety of graphs. The purpose of this study was to investigate what ways the preservice teachers interpreted position/time and distance/time graphs with an emphasis on both understandings and misconceptions. Data were primarily gathered through classroom observations, document analysis and reflections. The results showed that initially the participants had difficulties interpreting position-time and distance/time graphs. However, after the completion of a three-week unit, they showed increased understanding of interpreting graphs and how the slopes influenced movement in a qualitative manner. However, preservice teachers continued to struggle with quantitative interpretations and calculations. Additionally, preservice teachers had difficultly identifying errors in non-examples that mistakenly interpreted position/time graphs as elevation/time graphs and a few were unable to distinguish between position/time and distance/time graphs. Even with the increased use of technology to connect distance/time and position/time graphs, the preservice elementary teachers still struggled with understanding what the graphs represented. Guidelines will be provided that focus on how to design lessons to address the graph misconceptions including: opportunities to interpret misunderstandings, opportunities to create a story and match the story with the graph using technology and a specific and direct connection to movement, slope and y-intercept.

**Keywords:** Algebraic thinking, Technology integration, Graphing

## EXAMINATION OF 60-84 MONTHS OF AGE CHILDREN'S SCHOOL READINESS IN TERMS OF DIFFERENT VARIABLES

*Gozde Erturk Kara, Başak Filikci*

The aim of this study was to examine the effect of some variables such as age, gender, parents' education level, school type and district on 60-84 months of age children's school readiness. Descriptive survey model was used. The participants were 116 children who attented early childhood education centers in Aksaray, Tokat and Kayseri in 2014-2015 education year. Convenience sampling was preferred to collect the data.Metropolitan School Readiness test was used as data collection tool. As a result, mean scores of children in subtest of the scale were 14.93 in number readiness test and 43,12 in readining readiness test. General readiness mean score was 62,90. It was seen that children's scores doesmt change according to gender. It was presented that 72-84 months of age children's number readiness and general readiness scores were better than younger ones. Children whose mothers were graduated from university had better number readiness test scores. Children whose mothers were analphabet had lower readining readiness scores. Father education level effected children's test scores significantly too. When the education level increase, children had better scores. It was seen that children who attend independent preschools had better scores on number readiness subtest. And also, children whose schools were at center of the city had better scores on both number and readining readiness tests. In the light of these results, it is suggested parents that when deciding their children to send primary school, they should look over whether their child is adequate to start primary school at all development areas. And because parents education level is so effective on the scores,parents whose education level is lower should be educated on children development and education issues. At last, schools which are not at center of the city should be supported with materials, courses etc.

**Keywords:** Early childhood education, School readiness, School maturity

## EXAMINING INSTITUTIONALIZATION AT PUBLIC AND PRIVATE SECONDARY SCHOOLS

*Mevlüt Kara, Mehmet Yaşar*

This study aimed at determining the institutionalization level of public and private secondary schools based on teachers' views. The study was designed as descriptive research using survey model. The population of the study was comprised of teachers working at public and private secondary school teachers in Nizip, Şahinbey and Şehitkâmil districts of Gaziantep province. The sample of the study consisted of 739 teachers working at 49 secondary schools in the 2015-2016 academic year. The sample was chosen via stratified sampling method. Of the participants, 165 teachers were working at private secondary schools, while 574 teachers were working at public secondary schools. Teachers' views were gathered using "School Institutionalization Scale" developed by Özgan (2011). The data were interpreted using standard deviations, arithmetic means and t-test results. The results demonstrated that public secondary schools were institutionalized at a moderate level of specialization and adaptability, while they were institutionalized at high levels of cultural power, social responsibility, formalization and consistency. Private secondary schools were institutionalized at high levels in specialization, social responsibility and adaptability dimensions. They were institutionalized in cultural power, formalization and consistency dimensions at very high levels. Meanwhile, it was revealed that there was a significant difference between the means of the dimensions of institutionalization and school type variable. Suggestions are made based on the results of the study.

**Keywords:** Institutionalization, Private secondary schools, Public secondary schools, Teacher

## EXAMINING LEARNING OBJECT REPOSITORIES

*Bulent Dos*

The aim of this study is to examine the learning objects, learning object repositories and meta-data standards that is used in higher education. We can name digital learning objects that are used in lessons, such as powerpoint slides, books, interactive programs, simulations, case studies, virtual experiments and all the other sources for learning. The development of the communication technologies such as computer and mobile phones, led to change in learning. Educational technology developed and used in schools, such as Word, PDF, smart boards, flash animations. Many learning objects developed by educators. The main idea in creating learning objects repositories and meta-data standards is to distinguish the learning objects from another sources. One can apply a search for a learning object in Google but millions of results will revealed. But in repositories only the learning objects related with spesific subject will appear. The main repositories used internationally is Merlot Ariadne, Agora, Grow and Mace.

**Keywords:** Learning objects, Learning object repositories, meta data standards

## EXAMINING SOME OF THE VARIABLES IN TERMS OF THE LEVEL OF UNCERTAINTY AVOIDANCE OF TEACHER CANDIDATES

*Atila Yildirim*

Uncertainty avoidance', which deals with a tolerance for ambiguity in societies, stands as an integral part of culture classification of the societies. Defined mostly as 'the level of feeling uncomfortable regarding the uncertain, unknown or vague situations/conditions that create ambiguity and dilemma for persons in institutions and organizations in the communities', uncertainty avoidance level can affect behaviors, preferences and attitudes of people as the members of any community. Educational organizations as one of the institutions / organizations quite capable of sustaining or ensuring societies are also obviously affected by the overall level of uncertainty avoidance level of the societies. The purpose of this work, determining the views of teacher candidates for uncertainty avoidance levels of teacher candidates. It is a descriptive research based on general survey model. 210 teacher candidates studying at pedagogic formation in Ahmet Keleşoğlu Faculty of Education in Necmettin Erbakan University constitute the sample of this paper. Data were collected by means of a questionnaire form, which includes sixteen items developed by Korkut and Keskin (2015). In analyzing the data; descriptive statistics, percentage, frequency, t-test, One-Way Analysis of Variance (ANOVA) were used. As a result of analysis, regarding the participants' levels of uncertainty avoidance, overall mean was found as (Moderate level). In terms of gender, "class" and 'department' variables, there exist significant differences. At the end, suggestions based on findings were developed.

**Keywords:** Uncertainty, Uncertainty avoidance , Teacher candidates , School culture

## EXPERIMENTAL DESIGN BASED ON STATISTICAL METHOD FOR TIRE DEFLECTION ANALYSIS

*Şerafettin Ekinci*

Taguchi experimental design was utilized in this work for optimizing deflection parameters in order to minimize statics and dynamics deflection of tire. Experiments were conducted using the L9 orthogonal array. An electronic system was designed in order to determine deflection of the tire. Deflection experiments were conducted by means of single wheel tester. Each experiment was repeated five times. Signal to noise ratio and the analysis of variance were calculated as statistical methods for the aim of investigating the effects of inflation pressure, axial load and rotational speed on deflection of tire. In the Taguchi method, the optimum performance conditions required for the lowest deflection were obtained by ''the smaller-the better'' signal–noise ratio. Results of this study indicate that the inflation pressure has the most significant effect on statics and dynamics deflection. Optimum performance conditions were found to be 241 kPa for the inflation pressure, 4.5 kN for axial load and 60 rpm for rotational speed. The Taguchi method was evaluated in terms of validity and effectiveness for similar problems in this study.

**Keywords:** Anova, Deflection, Experimental Design, Taguchi, Tire

## EXPERIMENTAL INVESTIGATION OF INSULATION MATERIALS USED IN STRUCTURES ACCORDING TO ENERGY EFFICIENCY

*Turgut Kaya, Cenk Karakurt*

Energy efficiency is to maket he same amount of work by using less energy without compromising the quality and quantity of products and our life. In other words, energy efficiency is reducing the energy consumption for unit service and product. In this study XPS, EPS and Rock Wool used as insulation materials. An experimentl setup was prepared in order to determine the insulation properties of these materials. For this purpose, the external temperature of the experimental setup is adjusted at four different temperatures (-20, -15, -10 and -5 C°) with constant internal temperature and the electric energy consumption of the setup is measured at 4, 8, 16 and 24 hrs time intervals. The test results are compared and evaluated due to the energy efficiency of the materials.

**Keywords:** Structures, Insulation materials, Energy efficiency, Thermal conductivity

## EXPLORATION OF SECRET RELATIONS IN HOMICIDE CASES

*Merve Orakci, Bünyamin Ciylan*

Continuous development in technology enhances existing abilities and it brings many benefits to society. However, this development causes some negative conditions. The number of criminal cases has increased incrementally day by day. Furthermore, criminal cases are more complicated and confusing than before because of the developed technology. In this scope, analyzing criminal cases by using data mining methods might be beneficial for security forces. This method also enables exploration of unknown relations and patterns. In criminal cases, elements of crime are very important to make sense of crimes and to unravel secret relations among the victim, offender and crime of a certain criminal case. In other words, elements of crime enlighten complicated criminal cases. Database of National Incident-Based Reporting System

(NIBRS) includes incident-based data that enables the use of data mining methods for these aims. In this study, relations and associations between elements of crime are analyzed by using association rules as a data mining model. Association rules uncover related variables and give information about magnitude of connection between them. This model tries to determine relations between data structures in certain types. Several methods are used for generating association rules. Apriopri is the most common algorithm among other methods. In this study, analysis of 3142 homicide cases is done by using apriopri algorithm to generate association rules. Information about the time of crime, type of weapon, number of offenders possibly related to the crime, injury type and age, sex, race and ethnicity of offender and victim are used to apply the model and algorithm in this study. As a result of the analysis, association rules are interpreted to solve the secret relations in cases. These rules will enlighten unknowns of homicide cases and thus they will be beneficial for security forces.

**Keywords:** Data mining, Crime analysis, Association rules

## EXPLORING GRAPHING THROUGH PROGRAMMABLE ROBOTS

*H.Bahadir Yanik, Terri L. Kurz, Yasin Memiş*

Eight sixth-grade students in a gifted learning center in an urban city in the central part of Turkey explored graphing using programmable robots. The purpose of this study was to describe how these students engaged in this activity and utilized robots to test their conjectures that they developed for the interpretation of given position-time graphs. Data were primarily gathered through classroom observations, document analysis and interviews. The results showed that initially students had difficulties interpreting position-time graphs and writing appropriate scenarios for the given graphs. Specifically, students initially interpreted position/time graphs as velocity/time graphs and wrote scenarios accordingly. Furthermore, students had difficulties identifying the velocities for the given intervals on the position/time graphs as well as interpreting the meaning of slope in relation to physical movement. Programming robots and testing their own conjectures with robots provided students with real-life experiences to make sense of graphing motion in relation to position/time graphs. After programming the robots, students were able to see the graphical representation of their prediction and check whether or not their conjecture was consistent with the actual graph. As well, the students were able to articulate the physical meaning of slope and how it specifically relates to movement. The results showed increased student understanding regarding the relationship between velocity and distance on position/time graphs with the use of robots. Furthermore, the data also suggested that the students enjoyed using robots for exploring mathematical and science concepts and considered the use of the robots as beneficial to their mathematical understanding of position/time graphs.

**Keywords:** Educational robotics, Technology integration, Graphing

## EXPRESSIVE BASED GROUP STUDY TO IMPROVE THE SOCIAL-EMOTIONAL LEARNING SKILLS OF STUDENTS IN SINGLE PARENT FAMILIES

*Nur Akbulut Kiliçoğlu, Azize Nilgün Canel*

Depending on social and economic conditions families have had changes about not only its constitution but also functions. One of the results of these changes is single parent family (Bianchi, 1995; Ihinger-Tallman, 1986; Townley & Edmonson, 1991). In a single parent family, there is only one parent responsible for child (Bianchi, 1995; Ihinger-Tallman, 1986; Townley & Edmonson, 1991). One reason for the occurrence of single-parent families is the death of one parent. Developing social-emotional learning (SEL) skills is important for child who has parental loss. SEL is development of abilities, attitudes and values by children, youths and adults on behalf of gaining social-emotional competencies (Elias, Lantieri, Patti, Walberg et al., 1999). Individuals who have developed social-emotional aspects are more effective to solve problems with others, manage stress and exhibit more successful features for recognizing and understanding themselves (Kabakçı & Korkut, 2008). Besides, SEL qualifications facilitate young people to gain positive self-image, increase the capacity of healthy communication with the others and school achievement. Thus, it is possible to meet personel, social and academic needs of students in a balanced way (Elias, 2006). In the light of this information, the aim of this study is to improve social-emotional learning and life satisfaction of secondary school students who have single parents. Firstly, to identify subdimensions that need to be developed data were collected from 301 students (141 girls, 160 boys) through Social-Emotional Learning Skills Scale and Multidimensional Life Satisfaction Scale. Then, 8 (4 girls, 4 boys) for experimental group and 8 (4 girls, 4 boys) for control group voluntary students were selected for group study. After 9-session group counseling both qualitative and quantitative data were analysed. This study will contribute to family dynamics of SEL, single parenting and expressive studies. We would like to present our study as an oral presentation at conference.

**Keywords:** Social-emotional learning, Life satisfaction, Single-parent family, Expressive techniques

## FACTORS AFFECTING TEACHERS' ICT USES

*Ismail Celik*

The use of information and communication technology (ICT) makes an effective learning environment and importance of ICT for teaching and learning is recognized generally. Even though research evidence indicates the capability of technology to transform teaching and learning, the use of ICT in the instruction remains minimal and teachers do not utilize ICT effectively. The effective use of technological tools in teaching and learning depends on the variables that significantly affect teachers' ICT use. The purpose of this study is to determine the factors influencing ICT use and process in education. For this purpose, literature about teachers' technology integration has been investigated. Teachers' age, gender, attitudes, beliefs, self-efficacy, and innovativeness can be defined as internal variables affecting ICT use. Technical infrastructures, institutional support, financial support, and facilitating conditions (information or materials available and administrative support) are external variables determined in the relevant literature.

**Keywords:** Educational technology, Literature review

## FACTORS OF INFLUENCE INTO THE STUDENTS DECISION ON CHOOSING THE DIRECTION OF STUDIES IN THE REPUBLIC OF KOSOVA

*Halil Snopce, Sadri Alija, Artan Luma*

Every year, students who complete the high education, and who intend continuing their post-secondary education, are faced with the problem of selecting the direction of studies. The selection process of conducting studies usually starts years ago, and many factors are involved in this process. Identification and analysis of factors that influence the selection process of direction of studies by students was the purpose of this research. To identify the factors that have greater weight in determining the direction of studies by students, 1345 high school students in Kosova were surveyed using a questionnaire prepared for this purpose. These data provided descriptive information, quantitative and statistical interpretation. The statistical analysis of the data is made by using the SPSS software. Findings from this study indicate that a significant number of factors are taken into account by students during this process. Economic factors proved dominant during data analysis. Also a qualified majority of respondents would choose a public institution to further their education. Students in determining the direction of studies are mainly based on their inclinations and less on academic skills they have shown during their High school. A big impact in this process have parents, however the final decision is made by the students. About a third of respondents had difficulty or distraction in determining the direction of studies. About the fifth of them are not sure concerning their decision. At the end of this research we describe the implementation of an application which helps the interested sides; such are the students, parents and mentors in this process of decision making.

**Keywords:** Education, Selection, Studies, Department, Student

## FAMILIES WHO HAVE INDIVIDUALS WITH SPECIAL NEEDS AND THEIR VIEWS ON DEATH

*Beste Çağla Özata, Vasfiye Karabiyik*

This project conducted in order to find out the views of families on death that have individuals with special needs in North Cyprus. The study group, on the other hand, consists of 15 families (randomly chosen) in North Cyprus, who have children with special needs. Data collection conducted with semi-structured open-ended, questions developed by the researchers. The study benefitted from the qualitative method in the research. The data collected with semi-structured questions and a focus group with families created throughout the meetings. The analysis process are now currently continuing. The answers to the questions that the families put out will be evaluated through content analysis and data reduction methods. The answers will be divided into categories and their logical coherence will be stressed out. In the end of this research, a psychological support and counseling service will be found what special needs could be provided to the families who are in need of special needs. In addition to that, the study is thought to contribute to the literature of special education.

**Keywords:** Individuals with special needs, Family, Death anxiety

## FATHER'S ROLE IN SONS' AND DAUGHTERS' UPBRINGING

*Natela Doghonadze, Ramazan Goctu*

Traditionally mothers' role has been emphasized in child care, upbringing and his / her adult life. However, although fathers may really spend less time with their children, they have a crucial role in both sons' and daughters' mental, emotional, and social development. When father's role in the family and child's life is underestimated, or when father is simply present in the family, but withdrawn from children's upbringing, this can bring about very negative consequences. The goal of the paper is, on the one hand, to find out what people from various countries think about the role that father has had in their lives, and, on the other hand, to suggest the ways to reach a better father involvement in upbringing his children. Definition of fatherhood will be given. A questionnaire survey was held in Georgia and Turkey with people of different age categories (teenagers, young adults, middle-aged and old respondents) finding out the degree of importance of father in a person's life, his contribution to the child's knowledge, skills, motivation to learn and work, choice of profession, interests, self-confidence, gender images and orientation, feeling secure, etc. A cross-gender and cross-cultural comparison of answers will be offered. Both the literature review and the analysis of the questionnaire will expectedly reveal the great importance of fathers in child's formation and further life. The research has not only sociological, but also pedagogical value. Recommendations to parents and teachers working with parents will be offered, concerning fathers' behavior with his son(s) and daughter(s), his communication / parenting style, ways to stimulate the child's development, raise his / her self-confidence as a person and as a representative of their gender, etc. The importance of fathers' involvement in school-family relationships will be defined.

**Keywords:** Fatherhood, Mental, Emotional and social development, Parents-to-school cooperation

## FIFTH GRADE STUDENTS' LEVEL OF ANALOGICAL RELATION ESTABLISHING SKILLS BETWEEN THE TARGET AND THE SOURCE CONCEPTS: PNEUMATIC SYSTEM MODEL AND SIMPLE ELECTRICAL CIRCUIT

*Gonca Harman, Aytekin Çökelez*

In this study, by fifth grade students' level of analogical relation establishing skills between the target and the source concepts has been examined before the teaching in order to analyse the appropriateness of PSM in terms of teaching about the subject "Indispensable of Our Life: Electricity". Result of this study showed that 49 students in the experimental group established relations between pneumatic system model and simple electrical circuit. The students formed analogical relationships between "air pump" and "battery", "transparent plastic hose" and "connecting wires", "valve-switch, "plastic balloon-light bulb", "inflating plastic balloon" and "brightness of the bulb" in the Pneumatic System Model. Drawings and explanations made by students for analogical relationship showed that analogical model is understandable and can be used for teaching.

**Keywords:** Pneumatic system model, Simple electrical circuit, Analogical relationship, 5th grade students

## FINANCING OF SMALL AND MEDIUM ENTERPRISES – CASE OF MACEDONIA

*Nexhbi Veseli, Vjollca Hasani, Teuta Veseli*

This paper is prepared in a clear structure, in order to clarify in details microfinance, as a method for SMEs in accessing financing sources. At the beginning microfinance has been developed as an opportunity to help poor people lift themselves out of poverty. The most important thing is that microfinance helps people to open new businesses and with that improve economic and social condition of the society. It is done knowing the great need for access to financial resources, and also for other ways of support, either informal or nonfinancial methods. In this study, the importance is given to the development of microfinance in Macedonia, it is about the stages that have been performed and the results so far achieved. Knowing the methods of financing SMEs in other countries, the main issues that we have analyzed are the sources and methods of financing SMEs in Macedonia. In order to make the evaluation of these factors, we have used regression analysis on three variables. Finally there are presented the results obtained from empirical analysis, where we have analyzed the amounts of credits allocated to SMEs, the number of active enterprises, and the change of interest rates for SME loans, all these are made for a period from 2004 - 2012 (divided into quartiles). The results clarify the impact of credits and interest rates on the existence of SMEs and the opening of new enterprises in Macedonia. To our bad luck, the obtained results do not match with the results of other countries, while the reason is explained at the end of the study.

**Keywords:** Microfinance, Small and Medium Enterprises (SME), Lending, Banks, Business support agency

## FINDING POTENTIAL MINI HYDROPOWER SITES FOR SEYDISUYU BASIN: A GEOGRAPHICAL INFORMATION SYSTEM APPROACH

*Yildirim Bayazit, Recep Bakiş, Cengiz Koç*

The combining of evaluation instruments into Geographic Information System (GIS) environments has caused an advancement in solidifying the evaluation and analysis of the hydropower potential existing for the streams in the case of the spatial variability of different factors affecting stream power. GIS spatial analyses are very useful for the development of various methodologies which can be used to calculate hydropower potentials. Geographic Information System based hydrological modeling is conducted on equiareal raster cells by utilizing topographical and meteorological datasets. The input data are then compiled and analyzed using GIS data layers, including topographic characteristics, monthly evaporation and precipitation data. This is essential as it allows for determination of water streams, which have sufficient or high amounts of water and also the potential for showing possible locations where hydropower plants can be constructed. This study aims to analyze the application of a Geographical Information System for computing the theoretical surface hydropower potential by taking Seydisuyu basin at Sakarya Basin of Turkey as a case study. The study has shown that streams found in the Bilecik region have a good potential for hydropower production. In the study area, 51 possible designated locations of small hydropower plants (SHP) have been determined allowing for different annual energy production levels. The results of this study are very significant for the regional planning in collaboration with decision making authorities such as politicians and technical staff, so that hydropower plant construction and operations can be maximized in efficiency.

**Keywords:** Small hydropower plant (SHP), GIS, Water, Hydropower potential, Software tools for SHP assessment

## FINITE ELEMENT METHOD APPLICATTION OF WOODEN FURNITURE

*Mehmet Nuri Yildirim, Abdurahman Karaman, Aytac Akinay*

The design of wooden furniture is almost never the subject for mathematical considerations. Instead, the designer rests on experimental experience and constructs for example chairs with dimensions of structural members based on tradition reasons. By the much more common use of computers it is nowadays possible to use modern finite element method analysis in various stages of the design process. Furthermore use of FEM analysis in furniture design has improved quality and reduced the need for creating and testing a physical prototype in design. This paper investigated the static and fatigue behaviors of mortise and tenon joined armchair frames constructed of Scots Pine(Pinus Sylvestris) wood material. The finite element method (FEM) was utilized for analyzing the armchair construction by ANSYS Workbench software. The results show that there are close convergence between experimental study and FEM (static and fatigue) analysis results. The consistency level between the static test result and the static FEM analysis obtained at 5 mm mesh sizes was 95.5%. Furthermore, the consistency level between the fatigue test result and the fatigue FEM analysis obtained at same mesh size was 81.25%. As a result, FEM gives reasonable estimates of the overall strength performances of the armchair construction.

**Keywords:** Finite Element Method (FEM), Scots pine, Fatigue analysis, Static analysis

## FIREFLY ALGORITHM BASED EXPERT SYSTEM DESIGN FOR THE DIAGNOSIS OF LIVER DISORDERS

*Naciye Mülayim, Aysegul Alaybeyoglu*

Liver is a vital and the largest organ of human body and it has important role for the functions of body. Accurate and timely diagnosis of liver disorders is very important for patients. At this point, expert systems, which are computer programs that are derived from Artificial Intelligence, can be used to help physicians or other healthcare professionals for diagnosis of liver disorders and cut down the ratio of mortality and minimize the waiting time to meet medical experts. In this study, an expert system which is based on Firefly Algorithm (FA), inspired by the flashing behaviour of fireflies, is developed for the diagnosis of liver disorders. ILPD (Indian Liver Patient Dataset) which is in UCI Machine Learning Repository site and has 583 numbers of patients' data (2010) is used to analyze accuracy of the system.

**Keywords:** Firefly algorithm, Artificial intelligence, Liver disorder

## FORECASTING EVALUATION OF SCHOOL ENVIRONMENTAL PROJECTS: FRAMEWORK AND RESEARCH OBJECTS

*Maria Kalathaki*

Evaluation and inspection systems can provide valuable feedback to the school to build upon its achievements and meet the changing needs. Evaluation is treated as an integral part of the teaching and learning process and focuses on actual teaching practice, deeply transformative force in society, offering feedback and optimization processes. European Parliament and the Council, in 2001, set up the framework of the school evaluation processes with the recommendation to the Member States to establish transparent quality assurance systems and encouraged them to create a balanced framework of school self-assessments, and any external evaluations, to involve participation and stakeholders in all processes which can disseminate good practices, achievements of knowledge and experience. The initial assessment of educational projects is carried out before the start of a project to estimate some variables related to the development of the program. In this research, School Projects of Environmental Education of Heraklion, Crete (Greece) were checked about the prediction of evaluation concerning the planning and structuring phase. The research queries concerned the prediction of possible processes and techniques of initial evaluation, with criteria the analysis of needs, the recording of the objectives, the selection of type and model, the educational schedule and budget. An Evaluation Tool with the criteria of the projects' forecasting evaluation applied in order to check if the design and planning are aims-centered, innovative, sustainable, participative and digital. Status of the assessment, in terms of validity, reliability, the persuasiveness, its acceptance, its use and ultimately its usefulness, depends primarily on the accuracy and appropriateness of the criteria used.

**Keywords:** Environmental education, School educational project, Forecasting evaluation, Diagnostic evaluation

## FORGETFULL STUDENT TEACHERS: WHAT TO DO?

*Ismail Şan*

This study intends to investigate the student teachers' forget level of what they learnt in previous courses. In the light of this goal quizzes were applied to student teachers during the semester. In that quizzes, some questions were asked repeatedly to them, and the accuracy of the answers were monitored for each questions. 14 questions were asked them in different times at 10 quizzes. Some of the student teachers firstly chose the true and later the wrong options on these quizzes. This situation was named as "forgetting" and the direct opposite of it was named as "improvement" in this study. The study was held in 2015-16 autumn semester in Inonu University Faculty of Education. The working group composed of 77 student teachers that enrolled to the Instructional Principles and Methods course. 61 (%79,2) of working group showed forgetting evidence at least one time at 14 questions. On the data of 15 (%19,5) student teachers, forgetting was more dominant than improvement. 74 (%96,1) of working group showed improvement at least in one question but 3 (%3,9) of them didn't. According to Chi-square test on repeated 14 questions, working group showed improvement at 6 and forgetting at one. It was found that if repeat counts were 3 or 4 for a question the improvement was significant, but not for 2. On the light of these data, it can be said that a lecturer should ask a question at least 3 times periodically to make student teachers not to forget a topic and to take advantage of testing effect.

**Keywords:** Forgetting, teaching, student teacher

## FUZZY LOGIC BASED DOOR LOCK-RELEASE CONTROL SYSTEM FOR METRO SYSTEMS

*Ali Özdemir, Ayşegül Alaybeyoğlu, Kadriye Filiz Balbal, Tevfik Denizhan Müftüoğlu*

In this study, a fuzzy logic based door lock-release control system is proposed for metro systems. The proposed system aims to limit the number of passengers in the wagon to reduce tiresome situations such as crowdedness and noise. With this system, passengers who travel for long distances may have easy and good trip, especially for seniors, women with children, sick or disabled people.

**Keywords:** Education, McCarthy, Fuzzy Logic

## GAUSSIAN CALCULATIONS OF 3-PHENYL-4-(3,4-DIHYDROXYBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE AND N-ACETYL DERIVATIVE USING B3LYP AND HF BASIS SETS

*Gül Kotan, Haydar Yüksek*

3-Phenyl-4-(3,4-dihydroxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one (1) and 1-acetyl-3-phenyl-4-(3,4-dihydroxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one (2) were described in the literature (Bahçeci et al., 2002). In this study, these compounds were optimized by using the B3LYP/631G (d,p) and HF/631G (d,p) basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). IR absorption frequencies of analysed molecules were calculated by two methods. The veda4f program, was used in defining IR data, which were calculated theoretically (Jamróz, 2004). 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09 (Wolinski et al., 1990). Experimental (Bahçeci et al., 2002) and theoretical values were inserted into the grafic according to equatation of δ exp=a+b. δ calc. The standard error values were found via SigmaPlot program with regression coefficient of a and b constants. The experimental (Bahçeci et al., 2002) and the obtained theoretical values were compared and found by regression analysis that are accurete. Furthermore, UV-Vis values, dipole moments, the HOMO-LUMO energy, total energy of the molecule, bond angles, bond lengths and mulliken charges from both methods were calculated.

**Keywords:** B3LYP, HF, veda4f program, GIAO, Gaussian G09, SigmaPlot program, HOMO-LUMO energy

## GENDER DIFFERENCES IN EMPLOYMENT IN THE REPUBLIC OF MACEDONIA

*Selajdin Abduli, Stefan Qirici*

The Republic of Macedonia, similar to almost all ex-yugoslav and ex-socialist societies has been faced with many internal challenges, unemployment being one of the main focuses of all economic policies. Although the Republic of Macedonia has been implementing inclusive employment policies, in practice it can be argued that the level of unemployment of the female population has been decreasing relatively slowly compared to that of the male population. Therefore, this paper strives to provide insides as to gender differences in employment in the Republic of Macedonia.

**Keywords:** Gender, Gender differences, Unemployment, Employment, Republic of Macedonia

## GEOGRAPHICAL AND ETHNICAL DISCREPANCIES IN FIGHTING UNEMPLOYMENT IN THE REPUBLIC OF MACEDONIA

*Brikend Aziri, Izet Zeqiri*

The Republic of Macedonia, being one of the least developed countries in the old continent during the entire course of its existence as an independent country has made great efforts in fighting unemployment, although the level of progress has been a matter of great debates in the political and scientific community likewise. As will be noted throughout the paper, from a statistical point of view the Republic of Macedonia has managed to achieve great progress in fighting unemployment, but still it can be argued that there serious discrepancies in the intensity of decreasing unemployment among the two major ethnic communities in the country. Such differences might be addressed to many factors that go beyond pure economical reasoning and present a vicious circle that burdens even further the economic growth of the country.

**Keywords:** Unemployment, Employment, Demographical structure, Labor market

## GEOGRAPHY STUDENTS' PERCEPTION ON THE IMPLEMENTATION OF MULTIPLE INTELLIGENCES IN A CLIL COURSE

*Ljiljana Marković, Zorica Prnjat, Sladjana D. Andjelković*

The paper focuses on Geography students' perception on the implementation of multiple intelligences in a CLIL course designed at the Faculty of Geography, University of Belgrade. It starts with an overview of Howard Gardner's theory of multiple intelligences and examines its implications for classroom activities, materials design and cross-curriculum teaching. Being cognitively demanding, CLIL tasks require implementation of several types of intelligence. In addition to verbal intelligence, which is prevalent in foreign language teaching, other intelligences that assist in processing of non-linguistic content are also activated. For example, logical-mathematical intelligence is used in problem solving, hypothesizing, collecting and classifying data, whereas spatial-visual intelligence prevails in interpreting and comparing charts and tables. The paper presents survey results of students' perception on the MI application in a language course. We examined 150 first-year Geography students who attended seven CLIL classes in which multiple intelligences were applied. The survey instrument was the explorative questionnaire designed to examine perceptions of Geography students on the MI application in a CLIL setting. The data obtained from the survey demonstrate that the use of specifically designed teaching materials and tasks, which involve problem-solving, creative and critical thinking, fosters effective learning of both foreign languages and content and enhances students' motivation.

**Keywords:** Multiple intelligences, CLIL, English language, geography

## HEPATOPROTECTIVE EFFECT OF N-BUTANOL EXTRACT OF HELIOTROPIUM UNDULATUM ON EXPERIMENTAL MODEL OF ACETYLHYDRAZINE-INDUCED LIVER DAMAGE IN RATS

*Deffa Ouafa, Amedah Souad*

The n-butanol extract of the stems and flowers of Heliotropium undulatum and vitamin E was evaluated for hepatoprotective and antioxidant activities in acetylhydrazine liver-damaged rats. Hepatotoxicity was induced via intraperitoneal injection of acetyhydrazine at a dose of o.oo3 b.wt (ml) The animals received the extract (stems,flowers) and vitamin E orally, at dose o,o12 b.wt (ml) ).The assessment of hepatoprotective activity was evaluated by measuring the activities of aspartate aminotransferase (ASAT), alanine aminotransferase (ALAT), alkaline phosphatase (ALP), and lactate dehydrogenase (LDH), serum total bilirubin and albumin, the changes of antioxidant parameters like malondialdehyde (MDA) content, glutathione (GSH) level, superoxide dismutase (SOD) and glutathione peroxidase (GSH-Px) activities in the liver and histology. The crude extract significantly inhibits the enhanced ASAT, ALAT, ALP, and LDH activities released from the acetyhydrazine intoxicated animals. It also ameliorated the depressed value of serum albumin and the enhanced value of total bilirubin in plasma caused by acetylhydrazine intoxication. From the present study it can be concluded that n-butanol extract of Heliotropium undulatum and vitamin E possesses significant hepatoprotective potential against acute acetylhydrazine-induced liver damage induced.

**Keywords:** Heliotropium undulatum, Acetylhydrazine, Oxidative stress, Hepatoprotection, Histopathological analysis

## HERPETOFAUNA DIVERSITY ASSESSMENT IN GORONGOSA NATIONAL PARK

*Francisco Francisco, Valerio Macandza*

The diversity of herpetofauna in Mozambique is under-estimated due to lack of data. The purpose of this study was to evaluate the biodiversity of the herpetological fauna and its distribution in Gorongosa National Park. The species were captured by combining interception traps and fall and systematic searches in microhabitats along transects. The community composition of reptiles and amphibians in different sampling locations and types of habitats (forests, river banks, marshes and ponds) were compared using diversity index and similarity. 31 amphibian species were identified belonging to 16 genera and 11 families, and; 42 reptiles species belonging to 32 genera and 19 families. The families with the highest number of species were Hyperoliidae (banana reed frogs and toads) and Colubridae (typical snakes) representing 35% and 24% of the wealth of amphibians and reptiles respectively. The habitats richest in species of amphibians form the marshes and reptiles were forests. The greatest diversity of amphibians was found in the marshes and ponds, the reptile was in the woods. There is the phenomenon turnover between habitats. Four identified amphibians species are in decline globally and 60% of reptiles are not measured by the Red List of the International Union for Conservation of Nature. The results can be used as a baseline for monitoring the herpetofauna communities and detecting the effect of anthropogenic or natural habitat change in community composition of these taxonomic groups

**Keywords:** Herpetofauna, Amphibian, Reptiles, Richness, diversity, Habitat, Species

## HMI BASED SERVO MOTOR APPLICATION FOR CONTROL LABORATORY

*Nail Akçura, Ali Emre Kavur, Savaş Şahin*

With the developing technology, industrial manufacturing demands higher production rate and outputting products with better quality. Basically, this derives complex mechatronic automation systems. Factory conditions require experienced, wise and dynamic employees due to the fails, new solution approaches for the automation systems. At the first step, engineers with these attributes can be educated and fulfil the employee needs of industry. In this study, a university lecture based on industrial automation is issued. Dominated with practice, the exercise sets comprise most of the common elements including Programmable Logic Controller unit for macro automations, controller module for micro automations, Human Machine Interface (HMI) unit with touch panel, servo motor and asynchronous motor with their motor drivers, various of different principled sensors and various of indicators and buttons. The efficiency of the lecture mostly depends on the practices on the exercise sets. As distinct from the other alike lectures and courses, by HMI module, one of the most commonly used modules, is educated in the lectures. Thus, a higher productivity and attempts are expected from the pupils.

**Keywords:** HMI, SCADA, PLC, Servo motor, Control laboratory

## HOW DO GESTURES REFLECT MENTAL IMAGE?: PRISM EXAMPLE

*Nejla Gürefe*

In this study, it was investigated how hearing-impaired students defined prism concept and its features and gestures used in this definition process. Gestures are hand and arm movements by moving with the flow of speech. However, studies made in different disciplines indicated that gestures played an important role in cognitive activity. Gestures enacted the direction of the imaginary ideas in mind by embodied physical forms transferred to environment. They are a concrete indication of the mental image by figures represented. Because of this, determining gestures was seen important. This research data were gathered from two students studying in Deaf Special Education Vocational High School in Ankara during 2013- 2014 academic year. Open coding, axial coding and selective coding being grounded theory techniques were used to analyze the data collected via semi-structured interviews semi-interviews. Finding showed that students used iconic, metaphoric, deictic and ideographic gestures to define prism concept and its features.

**Keywords:** Prism, Gesture, Hearing impaired

## HUMOR IN THE OPPOSITION LINE: COVER CARTOONS OF UYKUSUZ MAGAZINE

*Nasif Ali Ünügür*

The purpose of this study is evaluation of cover cartoons of Uykusuz is a weekly humor magazine. Cover cartoons of Uykusuz humor magazine are about the agenda on political, economic or social events and often made references to statements of political leaders when discussing these issues. The magazine is defined as the opposition because it includes critical approaches to the current issues besides some presentation of humor content. The magazine cartoonists are in the young-middle age group and target audience of the magazine is in the same age group. Therefore, the language and humor format of the magazine coincides with the characteristics of this age group. At this point, in the comics, there are pieces of content created on social media from time to time. Social media is a platform where a message can produce, a large number of issues on the agenda with a large number of users. Uykusuz magazine has some limits about making a selection from a wide variety of topics on the agenda and presenting of the subject with a short and simple content instead of extensive textual content. The existence of a production format that could have much broader meanings can be mentioned on the magazine cover cartoons by concise texts, symbols drawn and established relationships. The study has a systematic sample of 2015 cover cartoons and the cover cartoon on the first week of every month is analyzed. In total, 12 cover cartoons of the magazine selected and analyzed as discourse analysis. As a result, a critical/oppositional approach is observed about statements of government members or close people to the government.

**Keywords:** Discourse analysis, Cartoon, Humor, Opposition

## IDEAS OF SCIENCE STUDENT TEACHERS ABOUT THE 6TH GRADE SCIENCE TEXTBOOK

*Osman Çardak, Musa Dikmenli*

Textbooks are the most common material used in secondary education. Teachers seek science textbooks very often as a teaching means especially when laboratory facilities are limited. In this respect, 6th grade science students are quite dependent on these textbooks. When we consider the excessive trust of the students at this age in the textbooks, it becomes important to analyze science textbooks. The purpose of this research is to research the ideas of science student teachers about the 6th grade science textbooks. The study group of the research consisted of 82 science student teachers who were studying at a state university in Konya province. The student teachers examined the 6th grade science textbook in the Teaching Technologies and Material Design lesson in which they participated in the academic year of 2015-2016. At the end of the examination, the participants were given a science textbook evaluation form in line with the purpose of the research. They were asked to fill in this form. The participants evaluated the 6th grade science textbook in terms of scientific content, teaching approach, design, laboratory activities, readability, assisting materials. As a result of the analyses made, it was found that the 6th grade science textbook was evaluated at a good level by the student teachers. Besides that, the readability of the book was evaluated at an average level. The results were discussed with literature and suggestions were developed.

**Keywords:** Science education, Textbook, Student teachers

## IMAGE CLOTHING AS A COMPONENT OF PROFESSIONAL DESIGNERS EDUCATION

*Svetlana Kuleshova, Oksana Zakharkevich, Galina Shvets*

Everybody want to look beautiful, bright and stylish at all times of the year, but sometimes it's not easy to find perfect clothing color combinations. Managing the impact of color on person's image is smart considering that color is one of the first things noticed about a person, particularly from a distance. Each hue has a different psychological effect, and there is a specific psychological reaction to each color. Results of the literature review show that clothes don't just affect person's confidence level; they can affect one's success, as "clothing significantly influences how others perceive you and how they respond to you." Thus the authors deal with a perceptive component as a necessary component of professional competence of the fashion designer. Authors conclude that choice of clothing colors must be achieved as a result of consideration of external data (person's coloring), and internal data (psychological features of the person). In the article it is presented through scheme of external and internal factors which have an impact on formation of visual imagery and impression. Every person has a unique pattern of body coloring and also particular preferences for color that relate to their temperament and past experiences. In this work authors are generally applied to the contemporary study of four classical temperaments in the approaches of image clothing and selecting colors. Authors improved the incidence matrixes those show the relationship between two classes of objects: first one shows the relationship between clothing colors and personality; and the second one is about to identify the best color palette for person's body coloring. The rules of identification the best color palette are formalized and represented as a CMYK color model. Selection clothing colors and evaluation of psychological comfort of clothes are presented as a part of studied courses for future fashion designers.

**Keywords:** Image clothing, Body coloring, Perceptive component, Psychological comfort

## IMAGING OF NEAR-SURFACE BURIED STRUCTURES USING MAGNETIC AND ELECTROMAGNETIC METHODS

*Ali Erden Babacan, Ali Elmas*

Many different geophysical methods are used in the study of structures that are natural or artificial in the underground for many years. In this study, magnetic and electromagnetic methods were applied to determine location and depth of an object embedded near the surface and the results obtained from all data were compared together. Field work was carried out in the geophysical applications field in Kanuni campus at Karadeniz Technical University. One expired MR device that its sizes, location and depth were known previously and it has metallic property was buried to the application area for the purpose of testing. Magnetic and electromagnetic measurements were taken on many profiles on the area where the device is embedded and the data taken were mapped. Also, the depth of the object from surface is calculated approximately with data obtained from the magnetic method were evaluated as two-dimensional. The results of these evaluations, the ability of the methods used to identify buried objects were tested. Separation force was highly observed in both magnetic and electromagnetic methods.

**Keywords:** Magnetic, Electromagnetic, Buried structure, Mapping, Resolution

## IMPACT OF CLOUD STORAGE SERVICES ON ORGANIZATIONS

*Uğurcan Atasoy, Ali Karaduman, Arif Sari*

Nowadays information size on the web is getting huge, so storage unit's importance is increased. Related storage units are mostly covers magnetic, optic, magneto-optic and solid devices. "Cloud Computing" is a modern popular data sharing environment, since the technology getting better and powerful to store data. The cloud storage gives lots of great options with decent prices such as; huge storage area freedom, flexibility, scalability, durability, stability, liability, speed and distance access. The cloud data storage services become an alternative solution for storing data rather than through those magneto-optic and solid devices and companies and regular users prefer cloud services to protect and share their data in the bracket of the controlled and safe mechanisms. This research highlights the possible impact of cloud storage services on organizations through exposing secondary data from the literature survey.

**Keywords:** Cloud computing, Cloud storage services, Efficiency, Business, Security, Flexibility

## IMPLEMENTING THE DISTRIBUTED BREADTH FIRST SEARCH ALGORITHM IN OMNET++ FOR TEACHING AND LEARNING PURPOSES

*Esranur Galip, Hasan Bulut*

A distributed system is considered as a set of computers communicating through the network and running collaboratively to coordinate their activities and to share the resources of the system to achieve a common goal. The coordination is achieved by exchanging messages, which carry information. Distributed algorithms play a crucial role in this coordination. However, teaching and learning distributed algorithms is difficult due to the inherent complexities of the distributed system. Since it is costly to construct a network of computers to run distributed algorithms to conduct research, teach and learn distributed algorithms, many commercial and freely available open source simulation tools have been developed. These tools facilitate the development of distributed algorithms for different environments. One of these tools is OMNET++, which is a component-based C++ simulation library and framework for building network simulators and offers a graphical runtime environment. To facilitate the understanding of the working mechanism, a distributed system can be modeled as a graph. Each computer in the distributed system is represented by a vertex, called node and a link between two computers is represented by an edge. Hereby, many graph algorithms can be utilized within a distributed system. For instance, traversal of computers (nodes) in a distributed system is important and used for solving many problems. There are many algorithms that provide traversal of nodes. In this study, we would like to demonstrate the use of a simulation tool for teaching and learning one of the fundamental distributed graph algorithms called Breadth First Search (BFS) algorithm. We use OMNET++ to visualize the steps of constructing a BFS tree, where colors of nodes and edges are dynamically changed to indicate the inner workings of the algorithm. Also, a learner can visually trace the flow of the messages between nodes in the simulation.

**Keywords:** Distributed algorithms, Graph algorithms, Breadth first search algorithm, Simulation for education, OMNET++

## IMPORTANCE OF CYBER SECURITY STRATEGIES IN GLOBALIZING WORLD AND CYBER SECURITY STRATEGIES OF DEVELOPED COUNTRIES

*Ayşegül Nacak, Arif Sari, Onurhan Yilmaz*

The widespread of the Internet and Information Communciation technologies lead cyber attacks to become an important and powerful tool for developed countries to be used as an diplomatic influence power on others. Due to varietey of security gaps in this field, countries manipulate their activities to be one step ahead from others. This reserach is lightening the up-to-date reseraches conducted in developed countries conducted in the field of cybersecurity and possible threats are exposed through describing the cyber warfare made over the years between developed countries. The concluding remarks of the study reveals the precautions should be taken for cyber security policy for the governments depending on the degree of reliability of the Internet and power of cyber attacks.

**Keywords:** Cyber world, Cyber security, Security strategies, Developing countries, Cyber war, Cyber security policy

## IMPORTANCE OF INFORMATION SYSTEMS FOR ORGANIZATIONS IN TERMS OF DISASTER RECOVERY

*Ahmet Doğan, Ismet Söylemez, Uğur Özcan*

It is possible to say that the probability of coming across to an unexpected situation individually or socially is always present within the scope of the pace of life. When this situation is considered in terms of organizations; it is possible that organizations may face a number of unexpected situations that may be procured by human beings or that may occur naturally, such as earthquake, flood, storm, fire, sabotage, etc. When it is considered that in contemporary organizations, information systems are used intensely for administrative functions in full, it is an indisputable fact that in case information systems that constitute such an importance for organizations break down in the direction of aforementioned situations, this condition will lead to considerably unfavorable results. For such situations, information systems play a key role in disaster recovery in order for organizations to provide business continuity and recover with minimum damage. Within the scope of this article, concepts and subjects in relation to organization, disaster recovery and information systems such as the relationship between business continuity and disaster recovery, which systems shall be activated primarily in case of a disaster by means of organizations, why information systems are important for organizations by means of disaster recovery, condition of disaster recovery in Turkey and in the world, etc. are taken into consideration. Along with this, it is aimed to create awareness in terms of this subject which is ignored by political actors and organizations, however that is extremely important in terms of economic stabilization.

**Keywords:** Organization, Disaster recovery, Information systems, Business continuity

## INEQUALITIES FOR ALGEBRAIC POLYNOMIALS IN THE REGIONS WITH PIECEWISE SMOOTH BOUNDARY OF COMPLEX PLANE

*Cevahir Doğanay Gün, Fahreddin G. Abdullayev*

Let be complex plane, be a finite region bounded by a Jordan curve and . Let w=Φ(z) be the univalent conformal mapping of onto the normalized by and . Let be a weight function defined in. For any , let us denote by the class of functions which are analytic in and satisfying the condition. Let denote the class of functions which are integrable and satisfying the condition , when is rectifiable curve. Let denote the class of arbitrary algebraic polynomials of degree at most . In this thesis, for any , following two problems have been investigated in various regions of the complex plane.

**Keywords:** Algebraic polynomial, Conformal maping, Quasiconformal maping, Smooth curve, Bernstein-walsh inequalities

## INFLUENCE OF MORNINGNESS-EVENINGNESS PREFERENCE OF EDUARDO MONDLANE SECONDARY SCHOOL STUDENTS IN CHIMOIO ON SCHOOL PERFORMANCE

*Adriano Nafital, Christopher Randler*

The current study aims to diagnose the influence of morningness-eveningness preference of Eduardo Mondlane Secondary School (EMSS) students in Chimoio on school performance. The research involved school students of the grade 10 (N= 88) from Chimoio in Manica which 51 were male and 37 female, with ages ranging from 14-22 years old. For data collection was used Horne and Osterberg questionnaire Portuguese version. This research seeks to answer the following questions i) what is the frequency distribution of early and late chronotypes in the population of the studants? ii) is there any relation between the variation of chronotypes and school achievement? Our results show that 60% of students have morningness preference, 35% intermediate and only 5% have eveningness preference. The study reveals a certain correlation between morningness-eveningness preference and school performance on EMSS students in Chimoio thus 85% morningness preference that have morning schedule approved and only 15% reproved. The night schedule students have 75% of approvals and 25% of disapproval. In conclusion, the morningness students attending the morning shift have better school performance in relation to the morning attending the night shift. The competent authorities, parents and guardians should identify the morningness-eveningness preferences on students as they influence positively or negatively on educational performance in our schools.

**Keywords:** Morningness-eveningness, Schedule, School performance

## INSIGHTS IN THE IMPLEMENTATION OF A NEW SUBJECT IN STATISTICS EDUCATION

*Henny Sunartie Tiga, Masitah Shahrill, Abby Tan, Mar Aswandi Mahadi, Hajah Zurina Haji Harun*

This study investigated the implementation of a new subject or syllabus called Statistics 4040 in Years 9 and 10, in one of the secondary schools in Brunei Darussalam. We examined firstly, the students' attitude towards Statistics 4040 and secondly, their challenges and limitations in learning the new subject. A survey on Students' Attitudes Toward Statistics (SATS with 36 items) was distributed to a sample of 42 students. Focus group interviews were also conducted to extract students' opinions regarding Statistics 4040. The results of this study indicated that students found the new subject, Statistics 4040, a rather complicated subject. However, the survey findings also showed that students were optimistic and determined to put a lot of effort into learning this subject. Moreover, students expressed that enrolling in this subject will make them more employable. The limitations faced by the students were mainly due to lack of relevant resources, which posed challenges in relation to their learning. The small case study provided valuable insights about the students' attitudes toward Statistics 4040 and how this can be used as a guide in preparing teachers' teaching plans to suit their students' needs. In addition, the positive results obtained in this study may encourage other schools to introduce Statistics 4040 in their school syllabus.

**Keywords:** Statistics education, Secondary school, Attitudes, Challenges

## INSPECTORS AND FUTURES INSPECTORS' CONCEPTIONS RELATING TO SEXUALITY EDUCATION

*Sabah Selmaoui, Taoufik El Abboudi, Abdelkader Ouhtit, Boujemaa Agorram, Salah-eddine Khzami, Prof.dr. Anouar, Alami.*

Since 1971 the Moroccan Ministry of National Education has continued to emphasize the sexuality education in school curricula. The implementation of this education meets obstacles to socio-cultural. Indeed, in our society sexuality is a taboo subject which we must not speak by modesty. In this work, we present an analysis of the future inspectors and inspectors conception's about the sexuality education. In this topic of strong educational range, conception can be analyzed as interaction between three poles: scientific knowledge (K), values (V) in a very broad sense (opinions, convictions, social representations, beliefs, ideologies), and social practices (P) either professional, families, or citizen according to the model KVP offered by Clement (2004; 2006). We used a questionnaire prepared jointly within the European project Biohead-Citizen, sent to the inspectors and futures inspectors. We present the results and we analyze and discuss the results concerning the age to which certain topic of sexual education should be taught for the first time in school.

**Keywords:** Sexuality education, Inspectors and future educational inspectors, Values, Conceptions, Social practices

## INSTRUCTIONAL SKILLS WORKSHOPS: A MODEL FOR TRAINING PROFESSORS HOW TO TEACH

*Peter Fenrich, Ron Johnson*

This paper describes a practical and experiential workshop designed for training professors and secondary school teachers how to teach. Training professors is a particular problem throughout the world as professors are typically hired for their content expertise rather than their teaching skills. The workshop provides a model that enables professors and teachers to develop and deliver successful lessons. The model has six components called the bridge-in, outcome or objective, pre-assessment, participatory/active learning, post-assessment, and summary. The workshop takes four days with the first day covering the theoretical foundations for teaching effectively. The following three days start with an educational topic and then each participant presents a mini-lesson. The mini-lesson cycle lasts forty minutes consisting of up to ten minutes for setting up, ten minutes for lesson delivery, five to seven minutes for self-reflection and written feedback, and thirteen to fifteen minutes for oral constructive feedback. This paper will also discuss how this workshop could be implemented.

**Keywords:** Instructional skills workshop, Training professors, Model

## INTERNATIONAL STUDENTS AND THEIR SUPERVISORS' EXPECTATIONS IN THE DOCTORAL SUPERVISION PROCESS IN UK UNIVERSITIES

*Osama Tashani*

International students studying for a PhD in UK universities need to adjust to a new culture, a different pedagogical approach, and the need to master often entirely new skills (including, but not limited to, English) to a competitive level. They come with varying expectations of the supervision process from their UK counterparts. On the other hand, supervisors of international students have their own expectations which in many cases are different from the students'. The aim of this study is to review the literature on international students and supervisors' expectations of the supervision process during a PhD and engage in developing the argument for the need to improve international students' PhD experience. A scoping review using a broad search strategy identified 15 relevant articles in the ERIC database and Google Scholar. Different methodological approaches were used to reflect international students and their supervisors' expectations and experiences with 7 articles used a questionnaire to collect data while 4 articles adopted a qualitative approach based on interviews. One article used a focus group methodology. Three articles engaged in historical and pedagogical comparisons between Western and Eastern educational philosophies and based conclusions of the study on authors' opinions gathered through their experience in supervising international students. Results suggested that many international students had expected a more structured programme of study, with a stronger emphasis on developing practical skills in research methodology and statistics. Overall, international students felt less integrated into the academic life of their universities and expressed the need for more support and opportunities to network with other PhD students. On the other hand, while supervisors understand the differences in skills and expectations between international and home students, they expressed that they expect international students to quickly adapt to the requirements of PhD programmes in UK universities.

**Keywords:** Higher education, PhD, Expectation, Supervision

## INVERSE SCATTERING PROBLEM FOR A CLASS STURM-LIOUVILLE OPERATOR

*Khanlar R. Mamedov, Nida P. Koşar*

In this work a boundary value problem

$$-y'' + q(x)y = \lambda^2 \rho(x)\, y \quad , \quad 0 < x < +\infty \qquad (1)$$

$$y(0) = 0 \qquad (2)$$

in non homojenous area with piecewise continous coefficient for a second order diferantial equation is considered. Examining the characteristics of the scattering data for solution of the inverse scattering problem is very important.

The relation between the number of eigenvalue of the problem and the difference of the logarithm of the scattering function is given with Levinson type formula.

In this work the continuity of the scattering function for the boundary problem is displayed and the Levinson type Formula is found.

**Keywords:** Inverse problem, Scattering function, Scattering data, Levinson type formula

## INVESTIGATING INFLUENCE OF REPEATED MICRO-TEACHING PRACTICES ON TEACHING SKILLS

*Bahattin Deniz Altunoğlu, Mehmet Altan Kurnaz*

It is expected that science teacher should be competent in the subject matter and in teaching skills. In this scope, a teacher should have a comprehensive repertoire of teaching methods and techniques which are adequate for subject matter and practice wisdom of this repertoire in the classroom. In Turkey, developed science curriculums have determined teachers' role in teaching as a guide (counselor) who prepare the learning environment to facilitate learning of students since 2005. This situation requires that teachers should learn different skills than they have in classic approach which is based on directly transfer of subject matter to students. However teachers gain and improve their teaching skills during service experience, this may cause decrease in students' achievement. In pre-service period, opportunities should be given teacher candidates for development of their teaching skills to prevent this achievement decrease. In current study we aimed to improve the science teacher candidates' teaching skills in the context of constructivism which is in harmonious with new Turkish science curriculum. Single group experimental design was chosen as the research design. To improvement of teaching skills micro-teaching practices were planned, which is adequate technique whereby teaching session is evaluated by peers and/or teaching staff, in order to get constructive feedback. During treatment science teacher candidates prepared lesson plan, which were designed according to 5E model. They practiced their instruction plan four times repeatedly. By each repeated instruction practice teachers candidates' plan and their implementation of plan were evaluated by teaching staff and their peers. The evaluation of instruction practice administered via a rubric. The developments of teacher candidates' teaching skills observed from first practice to the last one. Thereby it has been studied for improving teaching skills of science teacher candidates via repeated instruction practices.

**Keywords:** Repeated micro-teaching, Teacher training, Teachers candidates

## INVESTIGATING NIGERIAN UNIVERSITY STUDENTS' PERCEPTION TOWARDS ENGLISH LANGUAGE DOMINANCE OVER THEIR INDIGENOUS LANGUAGES

*Mohamed Adriosh, Ozge Razi*

The language policy in Nigeria granted English language the status of being the sole official language, and the language of instruction in the country. This approach influenced the educated people's competence, and subsequently, attitudes towards English and their native languages respectively. The study aims to investigate the perception of the Nigerian university students regarding the dominance of English over their indigenous languages and the role of the language policy of the country in this concern. The qualitative data, collected by interviewing eight students from two universities in the Northern side of Cyprus, answers the following questions: 1)What is the Nigerian university students' perceptions of the dominance of English over their national languages? 2)How do the Nigerian university students evaluate the language policy in their country and what they think about its potential effect on their national languages? The findings revealed that Nigerian university students use English much frequently for both formal and informal contexts in their daily lives. They also feel that their native language competence decreases gradually while their English mastery develops constantly. Although they hold positive attitudes towards English as the official language of Nigeria, they feel the need to reconsider the language policy and adopt the main national languages as official languages along with English. This study contributes to our understanding of multi-lingual people`s attitudes towards their heritage language and supports the research literature which shows that personal connection to the heritage language plays a significant role in individuals` attachment to the language rather than the actual proficiency of speakers.

**Keywords:** Language attitudes, Language policy, Indigenous languages, Dominance of English.

## INVESTIGATING THE DEMAND OF SMALL HOTEL AND RESTAURANT BUSINESSES FOR BANK FINANCING: THE CASE OF TURKEY

*Aysa Ipek Erdoğan*

The literature argues that small businesses are highly dependent on bank financing due to their inability to access the capital markets. We paint a different picture in this paper that analyzes the demand of small hotel and restaurant businesses for bank financing in Turkey. The results of a countrywide survey done with the owners/managers of the businesses that were responsible for the financial affairs are used for the analysis. We find that the majority of the businesses in the sample did not make a loan application in the last three years. Moreover, the tendency of firms to apply for bank financing did not change with age. When asked whether their firm were in a position not to apply for a bank loan in the last three years even if they needed bank financing with the idea that the application would be rejected, nearly all the participants responded negatively. The majority of the owners/managers of the firms declared that their firm’s demand for bank loans would increase with lower interest rates and lower collateral requirements. On the other hand, firms that would have a higher demand for bank loans if there were a reduction in interest rates and collateral requirements were younger firms.

**Keywords:** Small businesses, Hospitality industry, Bank loans, Turkey

## INVESTIGATING TURKISH MIDDLE SCHOOL SCIENCE TEXTBOOKS WITH USING AAAS CRITERIA

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Turkish science curriculum made several updates to integrate with inquiry and research oriented approaches. Now students are expected to question the information with their peers collaboratively inside and outside the school. The curriculum emphasizes to understand inquiry and research oriented approaches as “creating scientific explanations and arguments” instead of presenting them as “explarations and experiments”. These important updates in the curriculum created changes for textbooks. But we have limited knowledge how these changes effected textbooks. For instance, a decade ago, Dede and Yaman (2005) investigated Turkish middle school texbooks as a whole, but new studies focus on specific aspects of the textbooks rather than looking at the complete picture (Akgün, Çinici, Yıldırım and Köprübaşı 2015). In this study, we used American Association for the Advancement of Science (AAAS) Project 2061 criteria to evaluate scientific literacy for examining Turkish science textbooks. In this process, we specifically focused on (1) How units providing a sense of purpose for students, (2) How units taking account of student ideas, (3) How units support students developing scientific ideas, (4) How units engage students with relevant phenomena, (5) How units promote students’ thinking about phenomena, experiences, and knowledge, (6) How units assess progress. By using these criteria we examined all units in Turkish middle school science textbooks.

**Keywords:** Science textbooks, Middle school, AAAS Criteria

## INVESTIGATION OF AUTOMATION TECHNOLOGY IN CONSTRUCTION

*Melih Şahinöz, Ali Erdem Çerçevik, Yusuf Cengiz Toklu, Süheyla Yerel Kandemir, Mustafa Özgür Yayli*

Currently automation technologies are used in many areas. Automotive, food, consumer durables and furniture are some examples of these areas. The usage of automation technology has decreased firstly labor expenses in these areas. Reduction of labor costs has provided important reductions in production costs. Increased usage of automation technology has also enabled significant benefits in terms of production parameters, such as work security, safety, continuous production, and manufacturing time. Unfortunately, the usage of automation technology has not reached an adequate level at construction works. It is expected that this technology in construction works will provide important benefits in many subjects. This paper is focused on a genral view over use of 3D printer (Contour Crafting) technology in construction industry, advantages, and basic principles of the process. Original results obtained on laboratory studies as to the materials to be used are also presented. These results are thought to be directional in choosing most conveniant materials in automated concrete construction

**Keywords:** Automation in construction, Rapid manufacturing, Rapid prototyping, Contour crafting, Conrete

## INVESTIGATION OF ENGINEERING GEOPHYSICAL PROPERTIES OF RED CLAYS IN TRABZON CITY, TURKEY

*Ali Erden Babacan*

In Turkey, which is located one of the most active earthquake zones of world is always occurred many destructive earthquakes due to its complex geological structure and tectonic properties. These earthquakes cause a great number of casualties and extensive damage. In these areas, where the risk of earthquake, landslide and flood is high, the selection of the site where residential and industrial structures are going to be built is quite important. Therefore, to determine internal structure of soils and engineering parameters with geophysical studies in these areas is very crucial to appropriate site selection. In this study, three different geophysical methods were used to investigate the structure of soils with clay which has a wide expansion in Trabzon city. Within this scope, seismic refraction, multi-channel analysis of surface waves (MASW) and electrical resistivity tomography methods were applied and the data from geophysical measurements were analyzed in detail. It is also tried to determine engineering geophysical parameters of soils with clay. For this purpose, longitudinal and shear wave velocities and soil structure from seismic refraction and MASW methods, resistivity values, soil structure and water content from electric resistivity tomography were obtained for the soils with clay at three different areas in studied region. The dynamic-elastic and engineering parameters for soils with clay were calculated by using the longitudinal and shear wave velocities obtained from these studies. Furthermore, vertical and lateral heterogeneity were identified in the soil from geophysical results. Trabzon clays were evaluated in terms of construction from all of these data.

**Keywords:** Geophysics, Seismic, Electric, Red clay of Trabzon

## INVESTIGATION OF HIGH SCHOOLS TEACHERS' ORGANIZATIONAL TRUST LEVELS

*Fatih Bozbayindir*

Trust is an important fact because of the ease the impact on interpersonal and group solidarity and cooperation at the organizations' formation of structure (Halis, Göksöz, & Yaşar, 2007). Trust is an important organizational behavior which impact significantly employee performance and management processes at school, should be in school employees. Therefore, the current research aims to demonstrate organizational trust level of the teachers working in high schools and is intended develop recommendations for school management and employees in accordance with the results. The quantitative research method used in the research. The research consisted of 277 teachers who work in schools in the Gaziantep city center. In order to identify the organizational trust level of the participants, Organizational Trust Scale adapted by Yilmaz (2005) was used in the study. The scale consist of sensibility to workers, trust to administrator, openes to modernity and communication climate dimensions. According to results, dimension of trust to administrator with the highest average while sensibility to workers has the lowest average. On the other hand, the participants of study believed that "The school principal I know if I trust him and I trust". It can be said that confidence in the school is the result of trust in each other member of the school. Because trust between employees; It facilitates collaboration and reduces the need to monitor the behavior of each (Robbins ve Judge, 2012:320). Moreover, the participants of study believed that enough training education is not given to beginner teachers in order to provide better services in their school. However, the success of the teachers in the educational institutions where teaching and start the dynamics of protection can be achieved by a good orientation process. Especially, the teachers must be provided training for employees , students, school at school. Because people doubtful about they know nothing about the factors and conditions. This situation adversely affects their confidence. Accordingly, the needs can be meet by analyzing the needs of working in schools. So that more awareness will be provided to the employees.

**Keywords:** Organizational trust, Teacher

## INVESTIGATION OF INJURIES PREVALENCE OF THE YOUNG JUDOISTS

*Gökhan Çelik, Emrah Atay*

This study was conducted to determine which areas were the most frequently injured in competing in the junior category judoist between 15-20 years old that will form the bones staff of our country and will represent our country at Europe, World Championships and Olympic Games. 181 judoist (124 male (%68,5) and 57 female (%31,5)) participated in the research that races Young Turkey Championships. 58 (%32,04) of them participated in the study are composed of national athletes representing our country in the international arena. The body is divided to 9 region (neck, shoulder, wrist, elbow, back, waist, hip, knee, ankle) to determine the prevalence of injuries. SPSS 15.0 software package was used to analysis of obtained data. the region most exposed to the injuries of athletes are neck (n=58, %32), shoulder (n=43, %23,7), back (n=35, 19,3), knee (n=30, 16,6), wrist (n=26, 14,4), ankle (n=25, 13,8), elbow (n=24, 13,2), back (n=22, 12,2) and hip (n=18, 9,9), respectively. As a result of this study, it is seen that, judoist are injured the most neck and shoulder area. Therefore, the coaches and athletes involved with this sport seems inevitable organize extra training programs to develop these areas.

**Keywords:** Judo, Injury

## INVESTIGATION OF INTERNET PURPOSE USAGE AMONG UNIVERSITIES IN SULAIMANI CITY

*Miran Hikmat Mohammed Baban, Mahdi Mohammed Younis Younis*

These days the demand of using Internet connections becomes one of the main important aspects among individuals. Also, this need is not bounded with people daily uses, but it includes the different organizations such as educational, governmental and private sectors. In addition, there are different ideas of using Internet, for example some people may use it for online communications, online entertainment and reading news, and some others use it for learning aims by some educational organization specially universities. However, there is some complaining by government on bad using Internet services by their users.

**Keywords:** Database server, Password restriction, Data analysis, Stability

## INVESTIGATION OF PERFORMANCES FOR THE STATE UNIVERSITIES IN TURKEY

*Gamze Özel Kadilar, Nihal Ata Tutkun*

Today a new global economic structure with the transition to information society has emerged knowledge economy. This situation led to increase the competitions between universities and expectations from universities in the production and sharing of information. A global academic competition has been occurred by means of increases in income countries with globalization, international education facilities,

and academic competition between universities. Therefore, control of the education agency that fails to reach the goals of their activities and to assess uses resources efficiently to make planning for the future is important. Therefore, the efficiency analysis is a necessary management tool for educational institutions. The purpose of performance analysis is to identify effective use of resources efficiently in line with the objectives of the organization or organizations. Efficiency analysis has been one of the recently used method to evaluate the performance of educational institutions. Determination of place among other educational institutions of an educational institution made possible by periodically and performance analysis based on measurable data. Inadequacy of ratio analysis and parametric methods when comparing educational institutions and failure to achieve success in determining the most effective institutions, decision makers have led to the use of the Data Envelopment Analysis (DEA) technique, in comparative efficiency measures between in educational institutions. Furthermore, the number of research activities focused on the efficiency analysis of state universities in Turkey is not sufficient. DEA is used in the event of inability to convert a large number of inputs and outputs to a single input and output of in order to compare the relative effectiveness of educational institutions defined as decision making units (DMUs). Thus, the reasons for inefficient DMUs to be active with the DEA and be an example for this unit DMUs are determined. The aims of this study are a) to determine the efficiencies of the state universities by using DEA which is a performance measurement method for increasing the efficiency of educational institutions and to rank foundation universities with regard to efficiency values (b) to examine which universities use their inputs unproductively and produce their output inefficiently. In this study, the numbers of professor, associate professor, assistant professor, research assistants and total budget expenses are used as input variables, the numbers of undergraduate, graduate and graduated students, the number of projects, the number of international publications are used output variables for state universities in Turkey for year of 2014-2015.

**Keywords:** State university, Efficiency, Productivity, Performance, Data envelopment analysis

## INVESTIGATION OF PHYSICAL AND MECHANICAL PROPERTIES OF BILECIK BEIGE MARBLE

*Turgut Kaya, Cenk Karakurt, Özlem Çalişkan, Murat Aras*

Turkey is placed between 7 major countries who produces 70 % of worlds marble products. On the other hand, Bilecik region is the most important location for marble industry in Turkey. In this study the physical and mechanical properties of Bilecik Beige marble is investigated. The physical property determination for apparent density and open porosity were performed in accordance with TS EN 1936 and water absorbtion under atmospheric pressure was determined on 50x50x50 mm cubic specimens as described in TS EN 13755. The mechanical properties of marbles are determined by uniaxial compression test as described in TS EN 1926. In addition, the ultrasound pulse velocity, Shmidt hammer and compressive strength tests are carried on 100x100x100 mm cubic specimens. The hardness of marble specimens are determined by Knoop Microhardness test in accordance with TS EN 14205. The Knoop hardness test results and Shmidt surface hardness test results are compared and the correlation of these two hardness test are also found.

**Keywords:** Bilecik Beige marble, Physical properties, Knoop hardness, Schmidt Hammer, Compressive strength

## INVESTIGATION OF PRE-SCHOOL PROSPECTIVE TEACHERS' SCIENTIST IMAGE

*Mustafa Metin, Şeyma Ulukök Yildirim*

It is found that individuals perceive scientist as a wearing lab coat and glasses, elderly and middle age, work alone in a laboratory with chemical materials and male, as a result of the studies related to determine individuals' images about scientist. In literature this image is defined as stereotype and it is confirmed that this stereotype images is related to individuals' genders, grades and cultures. So individuals generally share this stereotypical image about scientist all over the world. This assertion is oriented to questioning the sources of these images. Researchers asserted that visual and printed media, textbooks, individuals' parents, counterparts and teachers are sources of this image. Many researches were dictated that teacher (especially pre-school teacher) had an important role to consisted scientist image of students in order to children generally form their first impressions at an early stage of their development and these impressions are most likely formed at school. If teachers of young children are to truly impact children's perceptions of scientists in a positive manner, and thus increase the numbers of children interested in studying science and maybe even those who are interested in science-related careers. So; pre-school teacher and pre-school prospective teacher who it will be teacher in the future have true images of scientist. Therefore, it is important to determined pre-school prospective teachers' images of scientist and changed incorrect images. The aim of study is to determined pre-school prospective teachers' scientist images. The study was carried out with 250 pre-school prospective teachers in different grade level at spring semester of 2015-2016. Survey methodology was used in this descriptive manner study. Data was gathered with a 38-attributions put on a five-point rating scale using classifications like "strongly disagree," "disagree," "undecided," "agree" and "strongly agree" which was developed and provided to reliability and validity by the researchers. The scale consists of four factors. The factor loading of items in the scale changes between 0.402 and 0.727. The initial solution revealed that four factors had an eigenvalue greater than1.These factors altogether explained 42.2% of variance of results. Cronbach alpha value of the four factors is between 0.82 and 0.88. Also, it was found that Cronbach alpha value of total scale is 0.870. Prospective teachers' responses to the scale were statistically analyzed via SPSS software. It is just like five point Likert Type scale and each statement were labelled as 5=Strongly agree, 4= agree, 3=medium level agree,2=disagree and 1= strongly disagree. Positive attributions were graded as 5-1 and negative attributions were graded as 1-5. Ranges of agreement with the attributions on the scale was determined by using (n-1)/n formula and after calculations the interval width of the range between 1 through 5 was calculated as 0.8. The interval width of 1.00-1.80 showed disagree, the 1.81-2.60 intervals showed slightly agree, the 2.61-3.40 interval showed medium level agree, the 3.41-4.20 interval showed mostly agree, and the 4.21-5.00 interval showed completely agree of agreement with the statements on the scale. The mean, percentages and frequency scores were computed for each attribution. As a result of the study, it was determined that prospective teacher had positive images of scientist such as "scientist is intelligent", "scientists have a broad perspective", "scientists have a great imagination", "scientist have self-confident" and "scientist is innovator". Besides it was seen that prospective teacher had negative images of scientist such as "scientist generally is unhappy". "Scientist is neglected" and "scientist likes to be lonely".

**Keywords:** Scientist image, Pre-service teachers

## INVESTIGATION OF THE EFFECT OF PHYSICAL ACTIVITY LEVELS OF SELF-CONFIDENCE

*Halil Çinkaya, Emrah Atay, Meriç Eraslan*

The purpose of this study is to investigate the relationship between physical activity levels and self-confidence of students who continue their education in high school in Burdur. 200 students (107 male (%53.5), 93 female (%46.5)) that continuing their education six different high schools are participated in

the research and their ages are between 14.84 ± 0.87 years, heights are between 166.75 ± 11.78 cm. Three different surveys were used to determine the relationship between physical activity and self-confidence. The first of these is a form prepared by the researchers questioned demographic characteristics. The second is International Physical Activity Questionnaire that was adapted to Turkish by Ozturk (2006). The third form is the self-confidence scale generated by 33 items that was developed by Akin (2007). SPSS 15.0 software package was used to analysis of obtained data. Data that conforms to a normal distribution were analyzed with the Kolmogorov-Smimirnov test. In the evaluation of the data not showed normal distribution were analyzed with Mann-Whitney U test and Kruskal-Wallis H test. Confidence in the internal dimensions of the scores of men were found to be higher than in women (p

**Keywords:** Physical activity, Self-confidence, Sports

## INVESTIGATION OF THE PRESERVICE SCIENCE TEACHERS' ENVIRONMENTAL EMOTIONS THROUGH THE ACTIVITY OF SOCIAL ATOM

*Fuat Tokur, Abuzer Akgün, Ümit Duruk*

This research aims to realize occurance and development of preservice science teachers' own process of environmental emotions. For this purpose, social atom activity was implemented. In the research, preservice science teachers were asked to create their own social atom graphics about the formation of their environmental emotions. These graphics were analyzed in the dimension of connectedness to nature, biospheric environmental concern and commitment to the natural environment. Preservice science teachers' social atom graphics about these dimensions were examined in the direction of their own views. Results showed that preservice science teachers pointed out in the first three orbits of their own social atom graphics mostly "parents, school, primary school teacher, close friends, pets, civilian and offical institutions and foundations about environment". It was determined that preservice science teachers stated in the dimension of connectedness to nature: "their parents, teachers and friends". It was determined in the dimension of biospheric environmental concern they stated that: "individuals who are in immediate vicinity, events and attitudes which may adversely affect the environment". It was determined in the dimension of commitment to the natural environment they stated that: "environmental pollution, recycle, energy-saving, individualistic and institutional responsibilities and behaviors".

**Keywords:** Environment, Environmental emotions, Social atom activity, Preservice science teachers

## INVESTIGATION OF THE PROBLEMS POSED BY THE PRE-SERVICE ELEMENTARY MATHEMATICS AND CLASSROOM TEACHERS

*Katibe Gizem Karaaslan, Burcu Durmaz*

The aim of this study is to examine the problems posed by the students at the departments of Elementary Mathematics Teaching and Elementary Teaching. For this purpose, 112 teacher candidates in total at a state university, 47 from the 4. grade students at the department of Elementary Mathematics Teaching and 65 from the 3. grade students at the department of Elementary Teaching, have been asked to pose a problem related to the solution of a problem at the primary education level in the 2015-2016 Education and Teaching Year Fall Term. The type of the study is survey and data of the study has been analyzed in respect of the problem analysis diagram created by the researchers. The problems posed by the students

have been examined in respects to question types and whether being fit to solution, being apparent of the posed problem in the linguistic context, being fit of the context, and the situation of featuring common meaning. The statistics upon the study have been stated with percentage and frequency. In respect of the findings of the study, it has been seen that the candidates of Elementary Mathematics Teaching pose problems in a higher rate than the candidates of Elementary Teaching in the expected way. At the end of the study, several suggestions have been offered based on the findings of the study.

**Keywords:** Teaching mathematics, Teacher education, Problem posing

## INVESTIGATION OF VIEWS OF MIDDLE SCHOOL STUDENTS, PRESERVICE SCIENCE TEACHERS AND SCIENCE TEACHERS TOWARDS ROBOTIC APPLICATIONS

*Sibel Açişli*

In this study, it was aimed to determine views of middle school students, preservice science teachers and science teachers about robotic applications. This study aims to present views and knowledge levels of middle school students, preservice science teachers and science teachers about robotic applications. In the study one group pretest-posttest experimental design was used. The study group of study consists of a total of 60 people including 20 middle school students, 20 preservice science teachers and 20 science teachers. In the study, the “Robotics Pre-Test”, which was developed by Riberio (2006) and translated into Turkish by Koç Şenol (2012), as well as "Robotics Satisfaction Test", which was developed by Silva (2008) and Gibbon (2007) and translated into Turkish by Koç Şenol (2012), and “Personal Information form" and a semi-structured interview form developed by the researcher after reviewing the relevant literature were used to collect the data. The study lasted for 60 hours in 3 stages. Middle school students were trained about robotics in the first stage, preservice science teachers were trained in the second stage and science teachers were trained in the third stage, respectively. In the first stage of the study, the Robotics and Lego Mindstorms Education EV3 Training Kits that will be used in the activities were introduced along with presentations and videos to the participants; in the second stage, they were informed about the use of Robotics program interface; and in the last stage, they designed a sample robot by using lego parts and performed some activities with programming. Descriptive statistics (frequency and percentage distribution) were used in the analysis of the data obtained from the study and inductive content analysis was applied in the analysis of the interview data. In the light of this study, views and knowledge levels of middle school students, preservice science teachers and science teachers about robotic applications as well as how they see the use of robotics as a method were determined.

**Keywords:** Middle school student, Preservice teacher, Teacher, Robotics

## KNOWLEDGE COMPARISON OF STUDENTS IN THE LAST CLASS OF SECONDARY SCHOOL IN THE FIELD OF SEXUAL EDUCATION

*Katarzyna Zborowska, Daria Jorg, Katarzyna Gwizdek, Anna Dittfeld*

In 2009 MEN issued the law according to which the classes in FLE are obligatory. The present research examined the sexual knowledge of high school students according to Family Life Education (FLE). The comparison of final grades high school students’ knowledge about sexuality, fertility, procreation, sexual law and sexually transmitted diseases. There were 317 final grades students tested in this study: 105 high

school students (33,12%), 119 polytechnic school students (37,54%) and 93 vocational school students (29,34%). Survey was realized by author's questionnaire consisting of 62 questions. Range of subjects was based on international standards of sexual education developed by the Regional Office of the WHO for Europe. IBM SPSS Statistics program was used for statistical analysis. The highest percentage of students who participate in FLE classes was in vocational school (83,9%) and the lowest percentage of students who attended FLE classes was in high school (40%) –which has no impact on the obtained results. The total average of awarded points, including questions about knowledge was: 3,53 in high schools, 3,13 in polytechnic schools and only 2, 80 in vocational schools in the six level scale. 56,3% polytechnic school students, 43% vocational school students and 36,2% high school students consider FLE classes necessary. There are 37,1% of high school students who had their first sexual intercourse, 63,9% of polytechnic school students and 93,5% of vocational school students. The final grade students' knowledge about issues which have been included in the survey is diversed level. The attendance in FLE classes does not affect the level of students' knowledge in this field.

**Keywords:** Sexual education, Family life education, FLE

## KNOWLEDGE REPRESENTATION AND REASONING IN PROLOG VIA DETECTIVE STORY GAME

*Ibrahim Şanlialp, Elif Gül*

Knowledge representation and reasoning are two important components of Artificial Intelligence(AI). Some AI researchers focus on that AI is to understand the nature of intelligence and human brain. Some researchers claim that AI has foundered on the subject of representation. Knower and proposition are the basic domains of representation because represantation is a relationship between two domains. The other important component is reasoning. AI has become interested in reasoning about knowledge. Reasoning is a form of calculation and a formal of manipulation of the symbols representing for propositions rather than numbers. Also reasoning is important to seek uncertain knowledge. In this paper, we present a new game including knowledge representation and reasoning. We used SWI-Prolog to programming this game. SWI-Prolog is used to identify different solutions of problem formed as a game. The problem of detective story consists of many artificial intelligence concepts such as rules analysis, abstract reasoning and knowledge representation. The game has a database which indicates the set of facts that the detective has used to solve the detective story. This database is implemented to the form of Prolog facts in our application. Our game is that there is a family on holiday. One night a murder is happened. There is a one killer and one victim. Our goal is to find the killer and victim. Detective finds out the problem. We apply a set of knowledge predicates, queries, facts, constants and rules to Prolog. This game uses Prolog language for representing the knowledge base by means of game rules. This paper includes knowledge representation, reasoning, declarative language, artificial intelligence, logic programming, declarative problem solving.

**Keywords:** SWI-Prolog, Artificial intelligence, Knowledge representation, Reasoning, Logic programming

## LASTEST HACKING TREND: RANSOMWARE AND ITS POSSIBLE FUTURE

*Mehmet Sevri, Nurettin Topaloğlu*

It's an indisputable fact that computers and computer-related technology has become an inadmissible part in people's daily lives. Almost every person, institution and organization carry on their daily work, record

many important data into computers and servers any moment or perform tasks by using prerecorded data via computers. As of September 2013, hackers who target important data of institutions and organizations began encrypting those data and demanding ransom. Hackers have made ransomware more sophisticated and began using them more rapidly and target-oriented. Even though such ransomware show a decline by the end of 2014, there is an increase at late 2015. It is predicted that ransomware will become an important problem especially for mobile users. In this study, general features of ransomware, it's history and used methods are examined. This study also deals with the features of recent ransomware (including the infamous CryptoLocker), their spreading, the damage they have inflicted, the amount of ransom paid and their potential future threat. The possible precautions against ransomware are described.

**Keywords:** Ransomware, Malware, CryptoLocker, Encryption, Hacker

## LEADERSHIP STYLES ADOPTED BY HEAD TEACHERS AND THE INFLUENCE ON STAFF PERFORMANCE IN PRIMARY SCHOOLS OF CHIMOIO CLUSTER IN MOZAMBIQUE

*Charnaldo Jaime Ndaipa*

The research study was designed to examine the leadership styles adopted by head teachers and the influence on staff performance in primary schools of Chimoio cluster in Mozambique. The research design used was a mixed method that incorporated both the quantitative and qualitative approaches. The target population consisted of head teachers, teachers and non-teaching staff from which a sample of five head teachers from five schools, thirty teachers and twenty non-teaching staff were involved in the study through purposive and random sampling. The research instruments used to collect data were open and close format questionnaire, in-depth interview and document analysis. The study findings showed that the overwhelming majority of head teachers employ democratic leadership style in Chimoio cluster primary schools which enhances positive school staff performance. Regarding to major factors that influence negatively the staff performance, the majority of the respondents highlighted lack of motivation, pupils' incompetence, low remuneration, coercive measures and lack of in-service training for professional development. It was evident from the findings that through democratic approach, staff participation and involvement in school matters and positive interpersonal relationship between school staff and head teachers influence the staff performance in various primary schools in Chimoio cluster. The study also established that there is a significant relationship between democratic leadership style and school climate. It was highlighted more over that higher democratic style more favourable open climate the head teachers cultivate. The main recommendations were addressed to the District services of education, youth and technology of Chimoio that should sensitise head teachers to apply democratic leadership style to enhance positive school staff performance, to run periodically in-service training to head teachers in collaboration with local universities which could adopt them with competence-based approach, towards management and leadership skills so that they improve the performance of their schools, to find ways of increasing school income for paying incentives and monetary reward so that it motivates the school staff. In addition, the study also recommended the head teachers and different stakeholders, to find strategies to improve teachers' school accountability as civil servants so that they play their expected role with ethics, morality and able to safeguard students' health and well-being, avoiding absenteeism and asking for gift on birthdays and to keep improving the school climate and staff performance through the persistent use of good practices such as staff participation and involvement in school affairs and positive interpersonal relationship existing between school staff and head teachers for attainment of intended school goals.

**Keywords:** Leadership styles, School performance

## LEARNING PROCESSES – MEDIATOR BETWEEN KNOWLEDGE MANAGEMENT AND DYNAMIC CAPABILITIES

*Isabel Martins, Ana Martins*

Globalisation is part and parcel of our postmodern era and is associated with unending change to various environments, namely, economic, social, cultural, political, legal and technological. This urges the need to reflect on the organisational learning construct and the extant theories of Crossan et al (1999). The more complex and dynamic the environment, the greater the need for the organisation to resort to second order learning as opposed to first order learning. This study reflects on dynamic capabilities and knowledge management, stressing that knowledge resources are critical to achieving sustaining competiveness. Dynamic capabilities depend upon the evolution of knowledge through both exploration and exploitation. The advantages of exploitation are based on increased efficiency while those of exploration are based on increased innovation. Those organisations that are capable of simultaneously explore and exploit their knowledge competences are known as ambidextrous. New contexts prompt managers to align this new reality with flexible management principles and therefore eradicating the traditional mechanistic ones thus freeing the organisational learning process. This shift is reliant on leadership which fosters teamwork, a common vision, organizational principles promoting trust. This paper entails primary data gathered from a sample of students from an university based in Gaziantep, Turkey, both from under and postgraduate Business degree programmes to determine whether students gain critical thinking skills necessary to become knowledge workers.

**Keywords:** Knowledge creation, Knowledge management, Dynamic capabilities Organisational learning

## LITERATURE REVIEW ON THE USE OF TABLET COMPUTERS IN EDUCATION

*Ismail Sahin*

The purpose of this paper is to investigate the literature review on the use of tablet computers in education. Now, the tablet PC use is encouraged by the Improvement of Opportunities and Technology Enhancement Action (FATIH) Project. FATIH Project is the most important and comprehensive project which is being conducted in the field of communication and information technology in our country. In this context, FATIH Project in education is comprised of five main components (Ministry of Education, 2014). These are: (1) Hardware and Software Infrastructure, (2) Educational e-Content Ensuring and Management, (3) Effective IT (Information Technology) Use in Teaching Programs, (4) Teachers' Inservice Education, and (5) Conscious, Secure, Manageable and Measurable IT Use. In the literature, there are many applications which developed compatible with tablet computers which are among the most widely used technology and distributed through FATIH Project. Hence, the applications are developed in accordance with tablet computers in the project. Thus, students will have the opportunity to develop, implement and edit electronic products in school and at home. The current literature review will contribute to the relevant literature and FATIH Project implementation.

**Keywords:** Tablet, Education

## LOGISTIC REGRESSION FOR DETERMINING FACTORS INFLUENCING STUDENTS' PERCEPTION OF COURSE EXPERIENCE

*Sadri Alija, Halil Snopce, Azir Aliu*

In the new competitive environment of the higher education in the Republic of Macedonia, the South East European University (SEEU) has the considerable impact as the model institution. It offers the various benefits to the new generations. These benefits are on the direction of offering the new agilities, and the knowledge which guaranties the better future for the students in the area of the global trade of labor. In each new activity taken from the SEEU, the main focus is increasing the quality and the development of its educational and research capacities. In this direction very important role has the increasing the quality of the learning and teaching process. The aim of this research is to determine some of the so called satisfaction factors, which have the positive impact on students' perception concerning some teaching practices. In this paper the analyses is done using the logistic regression method. For this purpose there is build the corresponding mathematical model. This model considers the factor satisfaction/dissatisfaction on some subjects. This factor is taken as the function of the measured variables. Together with this model, we build another model. The new model except the satisfaction factor considers the factor of encouragement (yes/no) for the future student in choosing the courses. In this direction there are done some comparisons as well. In total there are considered 20 variables which have the impact on the teaching process. The variable "answer" is the satisfaction factor. The obtained results make possible to identify the relations between the teaching practices and the satisfaction/dissatisfaction quality of the course (subject).

**Keywords:** Teaching practices, Satisfaction, Logistic regression, The mathematical model

## LUTFULLAH THE SHEIKH

*Fatma Korkmaz Hazar*

Lutfullah The Sheikh: Student of Haci Bayram-i Veli: Lutfullah The Sheikh. Starting with identifying hodjas: Somuncu Baba (Baker Father). Somuncu Baba was teacher of Lutfullah The Sheikh. Somuncu Baba baked bread in his little bakery in Bursa and sold breads by telling "loaf for believers, loaf for believers" on the streets.He lived in the public with The God. The Governor of Bursa, Emir Sultan recognized his value. By the way, Two of them were sayyid. Emir Sultan was groom of Yildirim Bayezid. At the opening of Bursa Grand Mosque, When Emir Sultan was requested to read khutbah, he did not accept this offer by saying "while our major is here, I cant assume this responsibility" and he introduce Somuncu Baba to Sultan of Ottoman. Somuncu Baba commented 7 different versions of surah al-fatihah and everybody loved them. But as he had hid himself till this event, he would be more popular now and he decided to leave Bursa. Hacı Bayram-i Veli: He was one of the other teachers of Lutfullah The Sheikh. And also he was a student of Somuncu Baba. He had been mudarris in Ankara till Somuncu Baba's invitation and he moved to Kayseri. Infact his name was Numan the Mudarris but his teacher entitled to him as Bayram. He inclined to islamic mysticism when he met with his teacher. When he returned to Ankara, as his teacher gave him caliphate, he started to teach the students. Time after time he built a reputation. Teacher of Mehmet The Conquerer, Aksemseddin was one of his students. That his salutation was so good is written on resources. He also adviced to Murat the Second. He founded Bayrammiye Sect. This was the first Turkish sect on Anatolian Lands. Lutfullah The Sheikh: He arrived to Balikesir from Chiefdom of Isfendiyarogullari. When he went to Ankara, he met with Hac-ı Bayram-i Veli and they had conversations. He invited his teacher to Balikesir. Haci Bayrami Veli visited Balikesir and stayed for a long time. Before he left Balikesir, he gave caliphate to Lutfullah The Sheikh. He introduce and spreaded Bayrammiye sect in the city. His tomb was visited intensely during Ottoman Age. There are writtens on resources about his two sons. They were competent

of islamic mysticism. Muhyiddin Mehmed Efendi The Sheikh: He was on duty at dervish lodge after his sufi education.He mentioned about his expertise on paraphrase, the prophet Muhammad's sayings and Arabic without hesitation. For example; He did not hesitate to criticise Ibrahim Pasha who was popular vizier of Suleyman The Magnificient about some topics. He was wise at Islamic Law. For example; When The Mufti, Zenbilli Ali Efendi was sick, he worked instead of the Mufti. Bahaeddin bin Lutfullah: He was the other son of Lutfullah Efendi The Sheikh.He started to work as muderris at Balikesir Madrasah after his science education. Then He taught at the Madrasah which Mehmet The Conquerer had built. After all he arrived to Balikesir and lived seclusion life. When Bayezid II got a madrasah built in Edirne, Bayezid II assigned him as first muderris and he worked here as muderris till his death. Hic jacet in Edirne.

**Keywords:** Seyh Lutfullah Efendi, Somuncu Baba, Hacı Bayrami Veli, Bayramiyye, Balikesir

## MACHINE LEARNING TECHNIQUES FOR COLONY CLASSIFICATION

*Volkan Altuntaş, Seda Altuntaş, Murat Gök*

The Medium (petri dish, media, agar plate, petri culture, agar culture) are environments that have been formulated for the growth of microorganisms. These can be for the different purposes such as growth, isolation, identification, counting, sensitivity tests of microorganisms, sterility testing, analysis of clinical samples, food, water, environmental controls, the acquisition of biological products, antibiotics and vitamins analysis, industrial analysis and so on (Merck Gıda Mikrobiyolojisi Uygulamaları, 2005). These structures which are formed by reproduced microorganisms and can be seen by eye are called colony. Mold on the cheese, bread, fruit or yogurt, yeast on the sugar-containing foods such as chocolate, marmalade are colonies formed by grown microorganism. Colonies formed on the agar, creating images of different morphological characteristics depending on the microorganism and growth media. Mediums that play an important role in the dairy industry, used for determining products quality and products shipped decision, are widely used in many fields such as medical, veterinary, pharmaceutical, cosmetic, food. In this paper, the new method is proposed for computer aided classification with image processing and machine learning methods for colony images that used to determining the microbiological analysis of products in the dairy industry.

**Keywords:** Microbiology, Image processing, Feature extraction, Classification, Machine learning

## MACROFUNGI OF ÇAY DISTRICT (AFYONKARAHISAR)

*Ahmet Afyon, Dursun Yağiz, Aziz Türkoğlu*

In order to determine the macrofungi of Çay (Afyonkarahisar) district, this study had been planned. Between 2007 and 2009, when the weather conditions are appropriate, field trips were carried out in this region covering the study area. The data provided from the field trips and from the laboratory was evaluated in the diagnosis of fungal samples. At the end of the study, a total of 102 taxa, 10 of which is Ascomycota and 92 of which is Basidiomycota, were identified. With this study, 102 taxes, one of which is a new record, has been added to Turkish Macromycota.

**Keywords:** Macrofungi, New record, Çay, Afyonkarahisar, Turkey

## MATHEMATIC USED FOR CALIBRATION OF VERTICAL METAL TANKS

*Harrouz Abdelkader, Benatiallah Ali, Harrouz Omar*

The verification regulation of vertical metal tank capacity equivalently uses the international OIML suggestion No.71 and the standard norm ISO7507. This recommendation fixed general requirement of storage tanks and based in many mathematic equation. This paper presents measurement of the bottom of reservoirs and his mathematic equation for the statement bottom by optical leveling, empowerment the bottom with a meter, measurements of the outer circumference and the internal geometric measuring.

**Keywords:** Calibration, Tank, Optical, ISO7507

## MATHEMATICAL MODELING SOLUTION OF UNIVERSITY COURSE TIMETABLING PROBLEM UNDER INSTRUCTOR PREFERENCE CONSTRAINT: A CASE STUDY

*Ukbe Usame Ucar, Selcuk Kursat Isleyen*

Course timetabling problem is a NP-Complete problem that universities are facing the beginning of each education period. One of the most important issue that must be taken into account in scheduling is lecturer's preferences. However, providing these preferences for each lecturer may not be possible in schedule due to administrative and physical conditions of educational institutions. In this paper, university course timetabling problem is solved by using a mixed integer mathematical model which aims minimizing total dissatisfactions of instructor preferences. The model is applied on the Department of Industrial Engineering at Gazi University and the results are compared in terms of satisfaction level with hand-prepared course scheduling.

**Keywords:** University course timetabling problem, Mathematical modelling, Integer programming.

## MEASURING EFFECTIVENESS USING DATA ENVELOPMENT ANALYSIS: A CASE OF UNIVERSITY

*Ahmet Doğan, Ismet Söylemez, Uğur Özcan*

For universities, performance measurements become more important in order to both keep up with their competitors and control their own inner dynamics. There are nearly 190 universities in Turkey according to 2015 data which portrays the size of competition between the universities. In this study, Data Envelopment Analysis (DEA) – a method used for measuring the effectiveness of systems – is applied to a university in Turkey in order to measure the effectiveness of faculties, collagiate schools and vocational collagiate schools of the university. Each faculty's, collagiate school's and vocational collagiate school's effectiveness value is obtained as a result of the application. Furthermore, comparisons are made using the performance measurements within each academic unit as well as between the units. According to these results, conclusive evaluations are made for the effective and non-effective faculties, collagiate schools and vocational collagiate schools.

**Keywords:** Data envelopment analysis, Performance measurement, Effectiveness, University

## MEASURMENT OF SOLAR RADIATION BY USING REAL EQUIPMENTS AND ANALYSIS FOR DIYARBAKIR CITY

*Musa Yilmaz, Hibetullah Kiliç*

Utilization of solar energy is increasing day by day. The basic component of that energy is solar radiation. The generation of electrical power via solar radiation is a simple method. However nowadays PV (photovoltaics) panel that converts solar energy to electrical energy are not very efficient. Therefore the region which is selected for huge amount of PV panels should have a higher potential of solar energy. To obtain the real measurement date a first class measurement equipment which has an acceptance form WMO(World meteorological organization) must be employed for measuring solar data in that specific region. Due to researches Diyarbakır city which is located in southeastern of Turkey has a higher solar energy potential this paper propose the result of measurement data of solar energy that is obtained by real measurement equipment's in Diyarbakır. As a result with a 1000W/m2 average value Diyarbakir city is most suitable area of that region to establish solar PV (photovoltaics). In addition in that region wide and large flat areas unsuitable for agriculture are available

**Keywords:** Solar irradiation, Renewable energy, PV Panels

## MECHANICAL ANALYSIS OF AN ANKLE-FOOT ORTHOSIS USING FINITE ELEMENT METHOD

*Hasan Kemal Surmen, Mahmut Cüneyt Fetvaci, Yunus Ziya Arslan*

Ankle-foot-orthosis (AFO) is an externally applied assistive device that encompasses the lower leg, ankle and foot of the human body. AFO is used to control instabilities in the lower limb by compensating for the muscle weakness and aligning the positions of ankle and foot properly. There are many type of AFO which are designed for different biomechanical needs. In AFO design, AFO stiffness is an important parameter that determines the mechanical characteristic of the AFO. Optimal AFO stiffness, which depends on different biomechanical requirements, is obtained by several variables, that is, trimlines, material type and thickness. These variables can be effectively tested in a finite element model of AFO. By doing so, observing the effects of design alterations on the mechanical properties of the AFO can be carried out using FEA (finite element analysis) without conducting an experimental testing of the AFO which would require a high level of cost. A 3D solid body model of the AFO is required for FEA. However, it is difficult to draw such an object having complex and free-form geometry with a CAD (computer aided design) software. On the other hand, with the advances in the scanning technology, an object with physical free-form geometry can be converted into a 3D CAD model, which enables the object to be mechanically analyzed in a finite element software. In this study, an example involving the mechanical analysis of an AFO is implemented using a finite element software. Results and future directions regarding the mechanical structure of the AFO were also reported.

**Keywords:** Ankle-foot-orthosis, Finite element analysis, Design, Trimline, Stiffness

## METAPHORICAL PERCEPTIONS OF THE STUDENTS AT KAFKAS UNIVERSITY, FACULTY OF SCIENCE AND LETTERS, THE MAIN DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE IN RELATION TO THEIR INSTRUCTORS

*Gencer Elkiliç*

This study aims to determine the metaphorical perceptions of the students at Kafkas University, Faculty of Science and Letters, the Main Department of English Language and Literature in relation to their instructors. In accordance with the main aim, metaphorical categories were obtained and also it was investigated whether there was a significant difference between the metaphors in relation to the ages, genders and levels of the students. The study group of this research consisted of 180 1st and 4th year randomly selected students who were attending to school regularly during the fall season of the 2015-2016 academic year. In order to determine the metaphorical perceptions of the students in relation to their instructors, the participants were distributed forms written statements as " the instructors are like .....; because ....." on them, and they were asked to fill in them objectively. During the analysis and interpretation process, organization, categorization, and metaphor sampling were applied. For the data analysis SPSS 20 was used. And the findings and the data analysis have been given the study in detail.

**Keywords:** Kafkas University, Student, Instructors, Metaphor, Age, Gender

## MIGRATION MOVEMENTS AND THEIR REFLECTIONS ON TURKISH PAINTING ART AFTER 1950 IN TURKEY

*Alparslan Tekin*

The movement of population to another place to live temporarily or permanently as personal, family or groups is called immigration. Considering the definitions of migration, it is seen that people are constantly living in the mandatory or voluntary movement towards a new geography to meet their expectations. As an individual in the community, an artist is known to have direct interaction with social events. Migration in the social, cultural, economic, political, education etc. is closely associated with the entire body of the community and this is an impressive event. Essentially, the internal migration in Turkey began after 1950s. The reasons such as the development of industry, the increase in labor demand, and the economic inability of the family have given impetus to cause migration from villages to cities. As a result, changes have taken place in both their living conditions and cultures. These changes were the subjects of the works of some artists in the Turkish art.

**Keywords:** Turkey, Migration movements, Turkish painting art

## MOBILE LEARNING IN HIGHER EDUCATION: DIMENSIONS AND COMPONENTS

*Ahmet Oğuz Aktürk*

With the advent of mobile technologies, the subject of mobile learning began to be investigated extensively in higher education systems. Many studies that have been conducted make mention of advantages posed by mobile technologies and attention is drawn to the fact that pedagogical and technical power of mobile technologies should be integrated into learning environments in order to render mobile learning more effective. While dealing with mobile learning comprehensively in higher education, one

should not only take into account technology and components of technology but at the same time other components of higher education. The purpose of this study, which is a review, was first to reveal the nature of mobile learning based on the relevant literature. Then, the components of mobile learning in higher education were investigated and these components of were identified as technology, pedagogy and stakeholders. Finally, the dimensions of mobile learning in higher education were investigated within the scope of the Technology Acceptance Model (TAM) and these dimensions were identified as ease of access, extrinsic drivers, quality of service, university support, student readiness, usefulness, ease of use, attitude and behavioral intention.

**Keywords:** Mobile technology, Mobile learning, Higher education

## MONITORING NUCLEAR REACTORS USING AN ANTI-NEUTRINO DETECTOR

*Sertaç Öztürk, Erkcan Özcan, Gökhan Ünel, Aytül Adigüzel*

A nuclear reactor emits huge numbers of anti-neutrinos resulting from fission process. Measuring anti-neutrino flux from a nuclear reactor can provide real time information of reactor status and thermal power. The first Nuclear Power Plant (NPP) will be constructed at Akkuyu, in Mersin province, in Turkey. An independent real time monitoring of Akkuyu NPP is very crucial for safety of the reactor activity. We present a simulation based study of a water Cherenkov anti-neutrino detector, aimed for monitoring Akkuyu NPP.

**Keywords:** Cherenkov, Nuclear plant, Neutrino, Detector

## MONITORING OF MIMOSA PIGRA IN THE GORONGOSA NATIONAL PARK (GNP)

*Francisco Francisco, Valerio Macandza*

The evaluations carried out from 1977 to 2008, suggested that Mimosa pigra, an exotic and invasive species, occurs in all the riparian fields around the Urema lake in GNP. In 2012, held up the present study, in order to monitor the distribution of Mimosa. Data were collected at the same points with GPS assistance. To analyze the distribution, were outlined transects. To assess the level of consumption, the observation of species consumed by herbivores in each square was made and was measured the intensity of consumption and verified the use of signs on scales. In each plot, the mimosa was recorded as present or absent and determined sociability. Pitures were taken of the plots for comparison with the pictures taken in 2008. It was considered invasion, the presence of the Mimosa in free plots in the study, permanence, the existence in both studies and disappearance, the absence in the present but present in previous. For the vegetation cover, compared the pitures of the previous study with those of this study. It was found that, mimosa was present at a frequency of 10%. The comparative results (2006 and 2012) invasion, permanence and disappearance of Mimosa in the plots assessed in 2006, showed that there was invasion in five, held in three and disappearance of two. Comparative putures, it was found that no significant changes in vegetation cover. The mimosa is the third most abundant and the fourth most consumed. Decreased dry gradient for wet, increased wet to very wet and very humid decreased from the waterlogged. The results should be used to produce information aimed at its adaptive management.

**Keywords:** Mimosa , Vegetation, Invasive

## MONITORING OF PESTICIDE RESIDUES IN TOMATOES FROM GREENHOUSES IN DOUAOUDA, ALGERIA

*Imane Saidi*

Tomato is considered as an important vegetable in Algeria, because of its high nutritive value and also, it is considered as a component of many local meals; thus, the aim of this work is to monitor this product frequently cultivated in an important farming regions in Algiers (capital city, north of Algeria) which is Douaouda, it is located in the west, for this, residues of nine (09) pesticides most used on this type of vegetable were researched, they belonged to different classes (pyrethroids, organophosphorus and fungicides). A total of 10 tomato samples were collected from the greenhouses of this region and the residues were extracted and quantified by capillary gas chromatography coupled with mass spectrometry (GC/MS), the used multi-residue method gives good recoveries ranged from 90,61% to 118,61%, included in the recommended interval [70-120%]. Concerning pesticide residues analysis, three pesticides (chlorpyrifos-ethyl, triadimenol and procymidon) were detected and determined in analysed tomato samples. Finally, the levels of contamination provide important information on the current status of pesticide's residues in the studied region and point to the need for controlling the use of these chemicals by farmers in order to reduce these pollutants in market foods and to minimize health risks.

**Keywords:** Pesticide residues, Tomato, GC-MS, Algeria, Multi-residue method

## MORPHOLOGICAL VARIABILITY ON POPULATION OF LOTUS CORNICULATUS L.IN VERTICAL PROFILE OF LYBETENI

*Enver Sherifi, Naser Shabani, Ron Salaj*

Mountain of Sharri in aspect of flora, vegetation and pasture aspect enter in one of the richest and most interesting areas in Balkan Peninsula and Europe .Is a large massif that features variety of habitats hosting about 2000 different plant species. Additionally, with nearly 200 endemic and sub endemic plant taxa, this mountain is an important Balkan and European centre of floral endemism. Here, you can see species from the arctic and sub-Mediterranean regions. The arctic species are unique, they originate from a former geological epoch-and are known as glacial relicts. Sharr Mountain is a perfect home for some of these glacial relicts that adapted to survive in harsh weather conditions such as cold winds and snow through the most of the year. Unlike from others mountains that are covered with forests, Sharri Mountain are covered with pastures that present potential for farming development and adding even that that they are rich with water which is necessary for animals during the pastures. These present alpines pastures. Lybeteni is placed in the eastern part of Shari Mountain. Situated in territory of Kacanik, Tetove and Ferizaj municipalities. In present project is explored Lybeteni with surrounding (surface around 160km2) initiated from bottom till it peak which is wide only few meters. Lower altitude is Lepenci valley (350m) and highest is peak of Lubeteni (2499m). Are explored seven morphological parameters of Lotus corniculatus L. and Lotus alpines species. Significant differences were found between 6 diverse localities in vertical profile.

**Keywords:** Lybeteni, Lotus corniculatus L., localities, Sharr Montain

## MUSIC STUDENT TEACHERS' VIEWS ON THE PRACTICE OF PEER ASSESSMENT

*Ömer Beyhan, Nurtug Barişeri Ahmethan*

In the constructive learning approach, a fundamental aim is to form a learning atmosphere in the classrooms where students become active participants. In this process, teachers use alternative assessment procedures, instead of traditional assessment methods in the evaluation of students' achievements. Beside teachers' evaluation, in the cooperative learning situations, peer assessment is also frequently used as one of the alternative evaluation techniques. The purpose of this research is to understand final year music students' views about peer assessment practices during music teaching methods course. In the scope of this study three dimensions are discussed: i) music students' evaluation of peer assessment, ii) music students' opinions about the difficulties experienced through this process and, iii) their suggestions about the implementation. This is a case study in qualitative research paradigm and was conducted during 2014-2015 autumn semester with twenty music students in Fine Arts Department of Music Education (Necmettin Erbakan University, Education Faculty). In order to get in-depth understanding about the perceptions of the music students, a semi structured interview technique was used in the data collecting process and data were analyzed by descriptive analysis method. The research results will be presented after data has been examined

**Keywords:** Music student teachers, Peer assessment, Teacher education.

## NEW RECOMMENDER SYSTEM USING NAIVE BAYES FOR E-LEARNING

*Mehmet Özcan, Tansu Temel*

Coming into prominence at the present time, e-learning is a great oppurtinity for learners. It provides tremendous assets most valuable of which is distance free learning. Besides, there is a great deal of e-learning resources on the web that causes information overload. Accordingly, it turns into a requisite that you ask for recommendation so as to find the resource you surely need. There are readily avaliable recommendation services arranged for that purpose. Such systems have various rating systems; furthermore users tend to rate the materials in different manners. Our goal with this paper is to generate confidential refferals thanks to Naive Bayesian algorithm for e-learning materials rated multifariously by learners. We also researched the effects of several data preprocessing techniques on achieving this goal.

**Keywords:** Naive bayes, Data preprocessing, E-learning, recommendation

## NUCLEAR E-COLOGY - THE CITIZEN SCIENCE PROJECT AND THE HIGH-SCHOOL MODERN PHYSICS EDUCATION

*Tadeusz Wibig, Punsiri Dam-o*

We have examined the possibility of using university scientific laboratories and the scientific stuff to establish the interesting and, in principle, worldwide concept of teaching nuclear and more general 'modern physics' students of the high schools far from big scientific centres. We developed big citizen science project called "nuclear e-cology", and proposed it to high school teachers. Many groups of students initially registered to the system and started the serious scientific work. Some of them finished the study in an expected one year period and we found results of their activity of the real physical value. We presented them successfully to the professional audience. We have also found some weak points appeared at the first attempt, the launch, of our project, but we have also found the great advantage of the method, in general, and we believe that the further work in this citizen science direction could be fruitful and successful from the point of view of students and teachers.

**Keywords:** Citizen science, Physics education, Internet project, Distant learning

## ON A BASIS PROBLEM FOR A CLASS OF STURM-LIOUVILLE OPERATOR WITH DISCONTINUOUS COEFFICIENT

*Nida P. Koşar, Khanlar R. Mamedov*

We consider the boundary value problem

$$-p(x)y'' + q(x)y = \lambda u, \qquad x \in [a,c) \cup (c,b] \tag{1}$$

$$\alpha_{11}y(a) - \alpha_{12}y'(a) = \lambda(\alpha_{21}y(a) - \alpha_{22}y'(a)) \tag{2}$$

$$\beta_{11}y(b) - \beta_{12}y'(b) = 0 \tag{3}$$

$$y(c+0) = y(c-0), \tag{4}$$

$$y'(c+0) - y'(c-0) = -(\delta_0 + \delta_1\lambda)y(c) \tag{5}$$

where $\lambda$ is a spectral parameter , q(x) is a real valued continuous function on the intervals [a,c) and (c,b] , has a finite limits $q(c \mp 0) = \lim_{x \to c \mp 0} q(x)$, $p(x) = \frac{1}{p_1^2}$ for $x \in [a,c)$, and $p(x) = \frac{1}{p_2^2}$ for $x \in (c,b]$; $p_i, \alpha_{ij}, \beta_{ij}$ $(i,j = 1,2)$ are real constants.

We assume also that $\delta_0 > 0, \delta_1 > 0$ and $\rho_1 = \begin{vmatrix} \alpha_{11} & \alpha_{12} \\ \alpha_{21} & \alpha_{22} \end{vmatrix} > 0$.

In the present work we investigate the completeness,the minimality and the basic properties of the system of eigenfunctions of the discontinuous boundary value problem (1)-(5).

Fort he ordinary differential equation in the continuous case, the boundary problems regarding the subject of our work with a spectral parameter in the boundary conditions have been investigated in many other works.

**Keywords:** Sturm-Liouvile operator, Base problem

## ON ASYMPTOTICALLY DEFERRED STATISTICAL EQUIVALENCE OF SEQUENCES

*Cem Koşar, Mehmet Küçükaslan*

In this talk,we will discuss that definition of asymptotically deferred statistical equivalence of nonnegative sequences is defined by combining the definition of asymptotically equivalence of sequences and deferred density. Besides main properties of asymptotically deferred statistical equivalence, some inclusion and equvalence results will be presented.

**Keywords:** Asympototically equivalent sequences, statistically equivalent sequences, deferred statistical convergence of sequences

## ONCREATE: CREATIVE ONLINE CROSS-CULTURAL COLLABORATION EXPERIENCES

*Muhammet Demirbilek*

The world is witnessing huge transformations and most countries share the similar challenges. Digitalization has widely been seen as a viable remedy to the above-mentioned societal challenges. The trend towards digitally facilitated collaboration is irreversible. Basic tasks comprise communication, sharing of documents and documentation of the working process and it can be stated that mature solutions exist. Online collaborative creative processes comprise all such activities which aim to solve problems in a group that do not have standard solutions, mediated through web-based tools. Typically, such problems require interdisciplinary, lateral thinking, social empathy and extensive ideation with the aim of mutual inspiration. The processes applied are often non-linear and rely on multimodal means of synchronous and asynchronous communication, with a special focus on visual tools. The value of collaborative learning is well appreciated by educators.The basis of online collaborative learning is the constructivist approach knowledge constructed and transformed by learning connecting with past experiences. Research stated that collaborative learning activities increase student motivation, self-esteem and self-confidence. The purpose of OnCreate is Erasmus + project is to exchange, implement and evaluate processual and contextual knowledge of online collaborative courses with focus on creation and innovation. With such activities which aim to solve in a group problems that do not have standard solutions, mediated through web-based tools. The paper addresses the issues of the complex phenomena around digital collaboration using social networking tool and competencies in real-life settings of two institutions of Higher Education.

**Keywords:** Online collaboration, Design processes, Cross-cultural collaboration, Elearning, Communities, computer-supported cooperative work, Computer-mediated communication systems, Social networking tool

## OPINIONS ABOUT THE IMPROVEMENTS MADE IN ACCORDANCE WITH THE POLICIES OF THE EUROPEAN UNION SCIENCE EDUCATION COURSE IN TURKEY

*Paşa Yalçin, Esin Zaim, Sema Altun Yalçin*

In the European Union "education" and "culture" is recognized as autonomous areas, each country has its own education policies. But there is an existing policy that the EU member states are set. The importance of the study, the improvements made in the first European science education based on their science policies in Turkey was investigated. In this study, according to European Union education policy views of stakeholders were taken on improvements being made in science in Turkey. For this purpose research that in Eastern Anatolia with teachers working as a science teacher in a province with a population of about 100,000 employees and was selected as the administrative staff of national education universe. While research performing that hybrid method was used. Questions were asked which consists of 8 items to stakeholders in qualitative methods. As quantitative methods in science education are stakeholders in the European Union in order to learn their opinions about policies that were applied Likert-type questionnaire consisting of 10 questions. When the study results according to the evaluation of the data obtained as stakeholders are unaware of the vast majority of EU policies, the people of sampling to be aware of a very small part of this policy, but the policy seems to be that it will be more accurate idea of the application received pursuant to our own national values. When evaluating qualitative data that the improvements compared to previous programs in science but they expression that remain limited to the level of it.

**Keywords:** Science teacher, Science education, Real life in electricity, Real life in astronomy

## OPINIONS OF UNIVERSITY STUDENTS ABOUT IMMIGRANT AND THEIRS PROBLEMS

*Nihat Simsek*

The purpose of this study is to determine immigrants and problems of who immigrated to city of south-east Turkey. The study is designed as a general survey based on qualitative research method. The study group of the research consists of 57 students who are study in Nizip Educational Faculty of University of Gaziantep. In this study with interview as data collection tool, content analysis and descriptive analyses techniques were used to analyze the data. Obtained findings are presented as appropriate supported with quantitative explanations. The results of the study showed that participants in the three groups

**Keywords:** Immigrants, Problem of immigrants, Qualitiative study

## OSMOTIC DEHYDRATION OF POTATO

*Mehdia Mihoubi*

Response surface methodology was used to determine the optimum processing conditions that yield maximum water loss (WL), weight reduction (WR) and minimum solid gain (SG) during osmotic dehydration of potato slices in sugar solution. The experiments were conducted according to Central Composite Design (CCD). The independent process variables for osmotic dehydration process were temperature (20 - 60°C), processing time (80 -300 minutes) and sugar concentration (40 - 60% w/w). For each response, second order polynomial models were developed using multiple linear regression analysis.

Analysis of variance (ANOVA) was performed to check the adequacy and accuracy of the fitted models. The response surfaces maps showing the interaction of process variables were constructed. The optimum conditions of dehydration were found to be: temperature 60℃, immersion time 300 min and sugar concentration 40% w/w. At this optimum point, water loss, solid gain and weight reduction were found to be 69,34(g/100 g initial sample), 3,56(g/100 g initial sample) and 66,8(g/100 g initial sample) respectively. Frying the potato slices previously dehydrated has reduced the frying time to 40.47 %.

**Keywords:** Optimization, Osmotic dehydration, Potato slices, Response surface methodology, Sugar solution

## PALLET LOADING PROBLEM: LITERATURE REVIEW AND RESEARCH TOPICS

*Talip Kellegöz, Uğur Özcan, Selçuk Kürşat Işleyen, Sedat Hakyemez, Ahmet Doğan, Res. Asst. Ismet Söylemez, Res. Asst. Murat Şahin*

In this paper, a comprehensive literature review of pallet loading problem widely studied during the past five decades is presented. General pallet loading problem consist of placing rectangular boxes onto rectangular pallets. Pallet loading problem is divided into three category; (i) manufacturer's pallet loading, it consists of placing identical rectangular boxes onto a single pallet with the aim of maximization of the number boxes placed, (ii) distributor's pallet loading, it consists of placing non-identical rectangular boxes onto a single pallet with the aim of maximization of the number boxes placed, and (iii) multiple pallet loading, it consists of placing all non-identical rectangular boxes onto one or more single pallet with the aim of minimization of the number pallets used. In this paper, according to this problem classes, the studies on pallet loading problem are reviewed and categorized separately. In the paper, future research directions and some research topics are also given.

**Keywords:** Pallet loading problem, Literature review, Combinatorial optimization.

## PARAMETRIC APPROACH TO DESIGN FRACTIONAL ORDER PI CONTROLLER FOR INTERVAL SYSTEMS

*Nusret Tan*

The field of parametric robust control is very important for the stability analysis and design of real control systems since it is well known that the mathematical representation of the plant dynamics suffers from uncertainties due to modelling errors, nonlinearities, manufacturing tolerances and operating conditions. A significant result in the field of robust stability of systems with parametric uncertainty is the Kharitonov theorem which addresses the Hurwitz stability of interval polynomials where each coefficient varies in a prescribed interval. An interval systems is a transfer function which have interval numerator and denominator polynomials. The purpose of this paper is to show how the fractional order PI controller can be used for stability analysis of interval systems. A parametric approach is provided for design of fractional order PI controller for interval systems.

**Keywords:** PI Controller, Fractional order PI, Interval systems, Parametric uncertainty

## PARENTS' PERCEPTIONS OF THEIR OWN MIDDLE SCHOOL STUDENTS' INTERNET ADDICTION

*Sena Köksoy, Ahmet Oğuz Aktürk*

The purpose of the study is to analyze perceptions of parents about their own middle school students' levels of internet addiction and to investigate how these perceptions are related with perceptions of parents regarding to their parental attitudes toward their children, whether they have internet connection or not at their home and parents' control of students' internet uses. The relation between perceptions of parents about their students' levels of internet addiction and students' daily internet usage time was also studied. Survey model was used as a research method in this study and data was collected through the "Parent-Child Internet Addiction Scale". 246 parents of middle school students that studied at a city located at the middle part of Turkey voluntarily participated in this study. The results illustrated that only 23 of the parents' of students categorized as "limited showing symptoms" for their perceptions of their own children's internet addiction while others categorized as "asymptomatic" for the same perception. In addition, while the relation between perceptions of parents about their own children's internet addiction and their perceptions of parental attitudes toward their own children was not a significant, the relation perceptions of parents about their own children's internet addiction with parents who poses internet at their own home and who do not control their own children internet uses was significant. Lastly, it was found that there is a positive significant relation between perceptions of parents for their own children' internet addition levels and students' daily internet usage times.

**Keywords:** Internet addiction, Parents of students, Perceived parental attitude

## PARTIAL DERIVATIVE EFFECTS IN TWO-DIMENSIONAL SPLINE FUNCTION NODES.

*Oguzer Sinan*

One of the methods is two-dimensional spline functions for to create geometrical model of surface. In this study Eligibility and availability of partial derivatives values for each node was examined. These nodes are projection of creation aimed surface. Created effects by the chosen values were evaluated. And selection of the optimum value for the partial derivatives were discussed. Application example as an initial value problem for the homogeneous first order linear partial differential equation is intended. Initial function was introduced as a spline function. In different derivative values were given for composed the nodes. and results were examined. As a second application example, a smooth and continuous surface with the selection of appropriate values of partial derivatives was aimed to build in general-purpose computer graphics. The results of the application example was provided with a computer software developed.

**Keywords:** Cubic spline, Two dimensional spline, Computer graphics

## PEER ASSESSMENT IN EDUCATION

*Mehmet Demir*

Peer assessment (PA) is an arrangement for work of each peers in similiar status to consider and specify the level, value, queality of work oramount of product or learning incomes or performance of the other learners (Topping, 1998). The goal of the assessment is to determine differences between expected performance and actual performance, give opportunities to students to take corrective action, and support their learning by providing affluent feedback (Gielen, Peeters, Dochy, Onghena ve Struyven, 2010). In addition, the assessment method has been utilised, including monitoring the performans of group assigments by instructors, or as a tool of reflection by students through to increase the pragmatic efficiency to reduce workloads of educators (Weaver ve Esposto, 2012). Peer assessment emerge as a new form of assessment although it has actually been utilised for centuries. The advantages of the assessment of writing and the method was described by George Jardine, a professor at the University of Glasgow. İn recent years, there has been much renewed interest in PA because of a formative assessment method (Topping, 2009). Thus PA can be widely used vary in number of ways, including writing, teaching, business, science, engineering to medicine as well as using a teaching strategy in higher education (Falchikov, 1995; Freeman, 1995; Strachan & Wilcox, 1996). There has been an unusual growth in student enrolments in worl-wide, such as Higher education institutions. However, the growth has not been matched proportional increasing in instructors number (Oldfield et al., 1995; Pond et al., 1995). Therefore, staff worklads, lack of time and effort required have been risen dramatically. In that situtaion, one of the solution can be to use peer assessment to encourages student in the learning process (Pond et al., 1995).

**Keywords:** Education, Peer assessment, Teaching

## PERCEPTIONS OF SOCIAL SCIENCES TEACHERS ON THE USE OF HISTORICAL EMPATHY TECHNIQUE IN SOCIAL SCIENCES CLASSES

*Mesut Aydin*

Social studies differ from each other due to the acquisition is located in lessons diversity strategies, methods and techniques are used. In the teaching-learning process, strategy, discipline is for gains in the selection methods and techniques are decisive. Date information on the transfer of topics related to social work disciplines located in the historical empathy technique is the only one of the techniques used. In this study is to determine the perceptions of social studies teachers for the exercise of historical empathy techniques in social studies lessons. Study to determine the perceptions of teachers prepared for qualitative research method was used and data analysis was done using descriptive and content analysis techniques. The study findings have emerged from each other, they have different perceptions regarding the use of historical empathy, social studies teacher is evaluated.

**Keywords:** Social sciences, Teacher, Historical empathy, Perception

## PHENOTYPIC PARAMETERS FOR SEMEN CHARACTERISTICS AND THEIR RELATIONSHIP WITH SCROTAL CIRCUMFERENCE IN OULED DJELLAL RAMS IN SOUTHEAST ALGERIA

*Yamina Belkhiri, Farida Bouzebda-afri, Zoubir Bouzebda, Amal Djaout*

Ouled Djellal ram is the heritage and one of the potential genetic resources of Algeria. Phenotypic parameters for semen characteristics and their relationships with scrotal circumference in Ouled Djellal rams were estimated in this experiment. The experiment was carried out using six rams aged between 2 and 4 years. Animals were kept in a building during the breeding season (autumn) and no-breeding season (spring) (2013) and fed with a constant ration of wheat and hay with free access to water. The means (± SE) of semen volume (ml/ejaculate), pH, mass motility, individual motility, sperm concentration (109 cells/ml), total sperm number (109 cells/ejaculate) and scrotal circumference, were 0.94±0.03, 6.75±0.03, 2.91 ± 0.16, 2.97± 0.17, 3.21 ± 0.18, 3.17 ± 0.25 and 34.39 ±0.38 respectively. Rams of Ouled-Djellal breed in southeast Algeria don't have seasonal variations of sexual activity in relation to annual photoperiod variation (P>0.05), except pH, mass motility and scrotal circumference have a significant effect by Season of collection. All the parameters, except scrotal circumference were affected by age. Selection for increased scrotal circumference should have favorable correlated response in semen characteristics. However, the existence of differences among rams.

**Keywords:** Semen characteristics, Scrotal circumference, Ram, Ouled-Djellal, Season, Algeria,

## PHISHING WEBSITES

*Ali Azizoğlu, Murat Gök*

Analyze and identify fraudulent Web site to be solved in the world of technology is one of the main problems. Nowadays, fake websites can not be distinguished from actual results in the victimization of many institutions and individuals. Therefore, identification and determination of these sites is of great importance. In this paper, the detection of fake websites with machine learning methods were conducted on computers. The experimental results obtained indicate that successful collective learning algorithms.

**Keywords:** Phishing, Websites, Clustering

## PICTOGRAM AND INFORMATION DESIGN

*Gökçin Çubukcu, Göknur Sözüneri*

Human beings used to communicate with each other by drawing pictures on the walls of the caves in order for making contact with each other. This situation, moreover, laid the foundations of pictorial levels of writing. These symbols have been called as pictograms. People had left a permanent mark thanks to those symbols that belong to this era, and had supported the basis of writing in important terms by laying a bridge between the generations. That has been the foundation of the pictograms used nowadays. Information design is a wide application area that is used by certain fields such as architecture, engineering, art and designing. Thus, information design has a multi-disciplinary and universal importance. Despite the fact that information design has shown a development in recent years, its application area may stretch towards the development of alphabet. The idea of that “The more a symbol has elements, the more it tells something” is wrong. Complicated signs lose its content integrity and may not be able to perform its duty by means of functionality. The aim of a symbol is to explain an idea or a concept to the opponent in a plain and visual way. Therefore, primary aim of information design shall be the necessity of

being understandable. Thus, both in printed environment and electronic environment or by means of instructional design, information shall be perceived clearly and explicitly. Information design has a lot of application areas. It is a branch that covers a lot of application areas such as document, form, operating manual, maps, info-graphic, instructions and signs, etc. Within the scope of this study, historical development of pictogram and information design and the factors to be considered in the phase of design, duration of perception on constructions such as colors and formation that are used within the scope of pictogram and information design are discussed on the point of examination.

**Keywords:** Pictogram, Color, Design, Information

## PLATE TECTONICS "INTEGRATIVE CONCEPT" IN MOROCCAN CURRICULA AND TEXTBOOKS OF SECONDARY SCHOOL.

*Radouan Chakour, Sabah Selmaoui, Anouar Alami, Moncef Zaki*

Teaching earth sciences is particulary delicate and apparently problematic, however, it's a domain for which the expectations of all the actors of the Moroccan pedagogic community should be strong and immense, especially if we take into consideration the wide surface of the country; the so called "the paradise of geologist". Morocco is rich of its immense geologic zones and sites. This country is characterized by its great scientific and economic importance, and of its diverse natural resources, which means that it's a rich site in terms of natural pedagogic materials. Yet, it's a scientific domain in which knowledge and paradigms change quickly, especially with the modern techniques used in the fields of study regarding the possible solutions of scientific problems that have a geological order. All these necessitate a permanent revision and reconstruction of the curricular, programs and textbooks which influence the conceptions and values that these official pedagogical documents may convey in an explicit or implicit way. In this research, we analyses the evolution of programs and textbooks, dealing with the themes linked to the tectonic plaques -integrating concept- , starting from 1967 till today. The objective of this analysis is to identify the approaches with which the programs and textbooks treat the themes of geology in secondary school, and to know the conceptions and implicit/explicit values which structure the choices made by these official documents: curricular, programs, and textbooks.

**Keywords:** Earth sciences, Tectonic of plaques, Conceptions, Values, Programs, Textbooks

## POSTMODERN APPROACHES AT ACADEMIES ACCORDING TO EDUCATORS

*Ömer Tayfur Öztürk*

Post-modern movements and ongoing developments in art called modernism after 1960s in the world begin to be found in Turkey in 1980s. Since 1990s, artists in Turkey have closely followed these new developments and have been involved. In our study, the tendencies of the scholars, , giving training in the academies providing the academic and artistic contributions to the art community, towards the post-modern artistic works will be examined. As a result, how much these scholars value this kind of intellectual work is the objective of our research since it is important in the production of art. The assessment will be given through the works of artists and this is important in terms of creating statistical information.

**Keywords:** Post-modern, Art education

## POTENTIOMETRIC TITRATIONS OF SOME 3-ALKYL(ARYL)-4-[3-(3-NITROBENZOXY)-4-METHOXYBENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE DERIVATIVES WITH ANTIOXIDANT ACTIVITIES

*Haydar Yüksek, Fevzi Aytemiz, Özlem Gürsoy Kol*

Determination of pKa values of the active constituent of certain pharmaceutical preparations is important because the distribution, transport behavior, bonding to receptors, and contributions to the metabolic behavior of the active constituent molecules depend on the ionization constant (Demirbas et al., 1998; Frey, Kokesh & Westheimer, 1971; Putun, Bereket & Keskin, 1995). In the present study, nine 3-alkyl(aryl)-4-[3-(3-nitrobenzoxy)-4-methoxybenzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-ones (3), which were synthesized by the reactions of 1 type compounds with 3-(3-nitrobenzoxy)-4-methoxybenzaldehyde (2) were obtained according to literature (Aytemiz, Yüksek, Albayrak & Alkan, 2015). The newly synthesized compounds 3 were titrated potentiometrically with tetrabutylammonium hydroxide in four non-aqueous solvents such as acetonitrile, isopropyl alcohol, tert-butyl alcohol, and N,N-dimethylformamide. The half-neutralization potential values and the corresponding pKa values were determined for all cases. Then antioxidant activities of 3 type compounds were also investigated. The antioxidant activity of tested compounds was determined by the ferric-reducing antioxidant power (FRAP), 1,1-diphenyl-2-picrylhydrazyl (DPPH) assays and Fe2+-metal chelating assay. Butylated hydroxytoluene (BHT), butylated hydroxyanisole (BHA), ethylenediaminetetraacetic acid (EDTA) and α-tocopherol were used as reference antioxidant compounds.

**Keywords:** potentiometrically, pKa, 1,2,4-triazol-5-one, antioxidant activity,

## PRE-SERVICE TEACHERS' PERSPECTIVE AROUND PEER ASSESSMENT

*Osman Çil*

The limitation of traditional formative and summative evaluation methods and the necessity of implementing effective and instructive assessment methods are frequently highlighted in the literature. Peer assessment is proposed by many researchers as one of the best alternative effective teaching and evaluation methodology; however, there is a very limited amount of research that focuses the perspective of assessed during the implementation of the peer assessment process. The main goal of this exploratory study is to investigate pre-service elementary school teachers' perspective around the peer assessment process. For this purpose, the researcher integrated peer assessment process to a college course for evaluating pre-service elementary school teachers' performance on their academic poster projects. Ninety of the pre-service elementary school teachers (66 female and 24 male) volunteered to participate in this study. Qualitative data was gathered by semi-structured interviews, focus group discussions, and a questionnaire that constructed with open-ended questions. Data analysis revealed pre-service elementary school teachers' concern towards peer assessment process since it eventually affected their grades and they did not have any faith on their peers' professionalism and expertise during the peer assessment process. Pre-service elementary school teachers did not only highlighted these concerns by explaining how the personal relationships between individuals could positively or negatively affect the grades they acquired from the project, but also described the score they acquired as unjust. Although the pre-service elementary school teachers acknowledged the benefits of peer assessment process by suggesting how peer assessment process helped them to get a better understanding on their peers' work and the assessment process, they also found peer assessment process time consuming and demanding.

Acknowledgment: Application fee of this conference was covered by the Ahi Evran University Scientific Research Projects Coordination Unit

**Keywords:** Peer assessment, Pre-service teachers, Elementary school teachers, Formative and summative assessment, Academic posters

## PREDICTION OF DISORDERED PROTEIN REGIONS WITH VOTING ENSEMBLE CLASSIFICATION METHOD

*Sebahattin Babur, Murat Gök*

Regions in the unfolded protein, transcriptional and translational regulation of the protein, protein-protein, protein-DNA interactions and tertiary structure plays an important role in determining. In studies until today, unfolded regions cancer, cardiovascular, diabetes, autoimmune diseases and neurodegenerative disorders have been determined to be associated with. In this study, the classifier algorithms for prediction of disordered regions in proteins are compared on a new data set combined with both single and voting method. According to the experimental results, combined voting method to PSPP class classifier 88.16% for CASP9 and 87.04% accuracy for CASP10 data sets for the detection of disordered regions. Specificity values were 70.09% and 36.13% , F-score values showed the best performance with values of 13.5% and 93.54%.

**Keywords:** Protein folding regions, Attribute coding, Classification methods, Voting ensemble classification method

## PREDICTION OF STUDENTS' SUCCESS IN MATHEMATICS BY A CLASSIFICATION TECHNIQUE VIA POLYHEDRAL CONIC FUNCTIONS

*Nur Uylaş Sati*

There has been a lot of work that has been already done using data mining in educational institutes and organizations and due to great success, the people are getting more and more interested in this field. In this paper a not long ago developped polyhedral conic functions classification algorithm is applied to a dataset of student performance in mathematics. Results are shown in tables and also various classification methods in WEKA are applied to compare the results. This method can be applied to various datasets related with education. It will be helpfull for all educational fields.

**Keywords:** Mathematics education, Polyhedral conic functions, Data mining, Classification

## PREDICTION OF UNKNOWN ELEMENTS IN RAPE CASES: MACHINE LEARNING APPROACH IN CRIME ANALYSIS

*Merve Orakci, Bünyamin Ciylan*

Crime numbers have increased and also its types have changed with the development of technology and civilizations. Now, crimes' structures are more complicated and complex. This condition requires new techniques in crime studies rather than traditional ones and machine learning technique becomes popular. The aim of this study is prediction about using drugs or consuming alcohol of the offender during or shortly before this offense in a rape case. This study involves an analysis on rape cases data by using general qualities of offenders and victims. Expected result of the analysis is estimating of unsharp crime elements in the most correct way with the help of explicit elements of the crime type. To gain this aim, decision tree, support vector machine and naive bayes as machine learning algorithms are used and performances of algorithms are compared with another to determining the most suitable algorithm. Crime data in the study are taken from Database of National Incident-Based Reporting System(NIBRS) which is composed by FBI. This study is so important to estimate unknown elements by using known ones and have essential information for solution of crimes.

**Keywords:** Crime analysis, Artificial neural networks, Decision tree, Support vector machine, Naive bayes

## PREDICTORS OF VOCATIONAL COLLEGE STUDENTS' BEHAVIORAL INTENTION TO USE WEB BASED LISTENING TEST

*Tolga Erdogan, Harun Cigdem, Osman Gazi Yildirim*

An increasing number of higher educational settings adopt web based testing systems to support their teaching and learning processes as well as to manage their assessment procedures more efficiently. Foreign language education is one of the main fields where web-based tests are administrated recently. Despite their benefits, there is a lack of research addressing the factors affecting intention of learners to use web based testing systems. The purpose of this study was to investigate behavioral intention of students to use a web-based listening test administered in a vocational college. The sample of the study comprised 929 post-secondary students enrolled in an "English Foreign Language" course during 2015-2016 Fall Semester. As a model, Computer Based Assessment Acceptance Model derived from Technology Acceptance Model was adopted in order to examine the predictors of participants' behavioral intention to use web-based listening test. An online questionnaire was used for obtaining data and the data were analyzed using linear regression method. The results of the study revealed that perceived usefulness was affected by perceived ease of use, goal expectancy, content of test and social influence. In addition, facilitating conditions and computer self-efficacy were found to be the two significant predictors of perceived ease of use. Furthermore, results of the study indicated that perceived playfulness was influenced by perceived usefulness, content and goal expectancy. Consequently, perceived usefulness, perceived ease of use and perceived playfulness exerted a direct influence on behavioral intention to use web based listening test. The study underlined that participants intended to use web based test if they consider it playful, useful and easy to use and it was perceived playful when it was useful.

**Keywords:** Behavioral intention, Web based testing, Foreign language education

## PREPARATION AND IN-VITRO ANTIOXIDANT ACTIVITIES OF SOME NOVEL 4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

*Haydar Yüksek, Özlem Gürsoy Kol*

1,2,4-Triazole derivatives have drawn considerable attention for the past few decades because of their diverse biological properties. Many 1,2,4-triazole derivatives are found to be potent antioxidant, anti-inflammatory, antimicrobial and antiviral agents. The identification of triazoles and determiniation of their antioxidant activities are of considerable interest because of the role they play in pharmacological actions. This study was planned as two parts; in the first part four novel 1-acetyl-3-alkyl(aryl)-4-[3-(4-nitrobenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one (4) and two novel 1-methyl-3-alkyl(aryl)-4-[3-(4-nitrobenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one (6) having 4,5-dihydro-1H-1,2,4-triazol-5-one ring were synthesized (Scheme 1). The starting compounds 3 were prepared according to the literature (Gürsoy-Kol & Yüksek, 2010). The structures of six new compounds (4a-d, 6b and 6d) are established from the spectral data. In the second part of the study, the antioxidant properties of the compounds 4 and 6 were studied and evaluated using different three antioxidant assays; including reducing power, free radical scavenging and metal chelating activity. For the measurement of the reductive ability, Fe3+-Fe2+ transformation was investigated in the presence of compound (Oyaizu, 1986). The hydrogen atoms or electrons donation ability of the synthesized compound was measured by DPPH. (Blois, 1958). The chelating effect of ferrous ions by the compound was determined (Dinis, Madeira & Almeida, 1994). BHT, BHA and α-tocopherol were used as reference antioxidant compounds.

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**Keywords:** 1,2,4-Triazole, Antioxidant, Reducing power, Free radical scavenging, Metal chelating

## PRESCHOOL TEACHER CANDITATES' OPINIONS ABOUT GIFTED CHILDREN

*Mustafa Uğraş, Burcu Gezer Şen, Erol Çil*

The objective of the study is to identify the views of preschool pre-service teachers on gifted children. Sample of the study included 57 pre-service preschool teachers attending Fırat University Faculty of Education. Qualitative research method was utilized in the present study. Data collection tools was a semi-structured interview form developed to identify views on gifted children by the authors. Content analysis on obtained data was conducted to describe the views of pre-service preschool teachers that participated in the study on gifted children. Results demonstrated that pre-service teachers had general knowledge on the identity of gifted children. Pre-service teachers stated that gifted children were significantly different than other children vis a vis certain characteristics. To develop the skills of these children, they argued that a different curriculum should be implemented and the teachers that would instruct that curriculum should be trained in a specialized education and possess adequate knowledge about gifted children. Pre-service teachers stipulated that it would be better to identify gifted children as earliest as possible, and thus, preschool period is the most appropriate time to identify the gifted children.

**Keywords:** Preschool, Education of gifted children, Gifted children

## PRESERVATION OF EDIRNE'S ARCHITECTURAL HERITAGE USING DIGITAL TERRAIN MODELS

*Doğan Savran, Gürkan Tuna*

Architectural heritage is an exceptional source of potential and inspiration for Edirne's tourist and economic development, which will create a sense of identity far exceeding the physical boundaries of the city. Therefore, the preservation of Edirne's unique architectural heritage is highly important. This applies not only to the preservation of the original architectural fabric but also to the preservation of the exceptional urban structures in the old city. In recent years, there has been an increasing demand for three-dimensional (3D) models of Earth including natural and urbanized areas to recreate a realistic virtual environment. Thanks to the advancements in geoinformation research, nowadays modelling of realistic 3D models for cities entirely from high-resolution images and remote sensor data is possible. In this study, the details of a study carried out to preserve Edirne's architectural heritage by constructing its 3D models is given. The study will play a key role in the long-term preservation of the historical building stock, existing view perspectives and the traditional city structure with its small parcels. In addition, it will help in preserving the old city's multifunctional aspects and appeal for residents and visitors.

**Keywords:** Architectural heritage, Preservation, Digital terrain models, Geographical information system

## PRESERVICE SCIENCE TEACHERS' CONCEPTUAL FRAMEWORKS REGARDING FLOATING

*Seyit Ahmet Kiray*

Floating is one of the main issues in science classes. Floating concept is quite complex, as it is associated with many content areas. In order for students to understand the floating, they should comprehend pressure, pressure force, density, buoyancy, buoyant force, balanced and unbalanced force, gravity, weight, and the principle of Archimedes. The content is quite complex as it is associated with many content areas. The purpose of this study is to investigate preservice science students' conceptual frameworks regarding floating. In this study, datas are collected 73 participants using a free word association test. Word association tests are among the most commonly used methods to analyze the cognitive constructs. The results of this study showed that the preservice science students generated many ideas related to floating concepts.

**Keywords:** Floating, Word association test, Science education

## PRESERVICE SCIENCE TEACHERS' CONCEPTUAL FRAMEWORKS REGARDING SINKING

*Seyit Ahmet Kiray*

Students ideas about floating and sinking are intriguing. Research into students ideas about this topic has identified a number of non-scientific conceptions. The purpose of this study is to investigate preservice science students' conceptual frameworks regarding sinking. In this study, datas are collected 73 participants using a free word association test. The word association test is one of the oldest educational tools for investigating the cognitive structure of learners. However, word association tests were used for various purposes in the literatüre such as cognitive structures, and misconceptions. The results of this study showed that the preservice science students generated many ideas related to sinking concepts.

**Keywords:** Sinking, Word association test, Science education

## PRIMARY FOURTH-GRADE STUDENTS' PERCEPTIONS ABOUT MODEL ELICITING ACTIVITIES AND MODELING PROCESESS

*Neslihan Şahin, Ali Eraslan*

In line with the new education system of 4+4+4, mathematical modeling has taken its place in the current primary (1-4) mathematics curriculum as one of the six basic mathematics skills (MoNE, 2015). In particular, the new curriculum emphasizes that primary school students are able to solve the problems in their everyday life in using their own mathematical knowledge with the help of mathematical modeling (MoNE, 2015). In addition, during the process of modeling, students are able to (a) simplify complex problems in making predictions and assumptions, (b) identify quantities in the real-life problems, (c) represent relationships among quantities using tables, graphs, and formulas, and (d) analyze relationships in order to make interferences (MoNE, 2015). It is important that research continues so that the gap in instruction related to modeling can be filled at the primary school level and it can be determined how well primary school children are prepared for middle school, high school and for later in life in terms of the task of solving the real-life problems that they will inevitably come across in their professions or as ordinary citizens. Therefore, the purpose of the present study, as part of a larger body of research, is to examine primary 4th grade students' perceptions on model eliciting activities including mathematical modeling and modeling processes they worked. This study was carried on a state school in a big city of the Black See region of Turkey. Participants a total of 24 fourth-grade students at a primary school in the 2015-2016 academic years. In the study, six groups of students of four individuals each who were chosen from among the students' own group of friends were given the task of creating a different model every week for six weeks and the students were asked to work together on these modeling activities. After activities completed, each student in the groups was separately interviewed about what they think about model eliciting activities and modeling processes they worked on. Each semi-structured interview took about 10 or 15 minutes and videotaped. The transcription of conversation of each student was qualitatively analyzed for the common themes. Findings indicated that primary fourth grade students had positive feelings about model eliciting activities but they found it more difficult than regular classroom activities.

**Keywords:** Model eliciting activities, Modeling processes, Primary school students, Perceptions

## PRIMARY SCHOOL TEACHER EDUCATION STUDENTS' VIEWPOINTS ON SEED GERMINATION

*Ramazan Çeken*

Germination is a process in which a partially or fully differentiated embryo resumes growth after a period of rest. It needs average heat and water. Surely lights and chemical substance iniside the seed have important roles during this process. People sometimes have confussion in germination. This study mainly based on the mis-understanding of such biological event. The purpose of this research was to point out PSTES'viewpoins on seed germination. In accordance with this aim, data were collected from 23 PSTES after the first year educational term. Semi-structured interview was used to collect the data as a qualitative research method. Descriptive analysis technique was used in data analysing process to get useful catogories. Five Open-ended questions were prepared and communicated to PSTES. Data which is achieved from open-ended questions was analyzed using content analysis technique. 12 of 23 PSTES defined germination as to leaf out. 7 of PSTES believe that plants are growimg during this process. According to the 17 participant students, light is a requirement. Even though 9 students emhisize the average conditions for germination process, 14 PSTES believe that plants make photosynthesis during this process. PSTES'prior knowledge on seed germination need to be reconstructed as they explained it using misconceptions. They dont have a clear understanding on both light roles and photosynthesis fuctions during this process.

**Keywords:** Germination, Misconception, Science education

## PRIMARY SCHOOL TEACHER'S CURRICULUM IN AZERBAIJAN AND EXAMINATION OF THE PROBLEMS IN PRACTICE

*Adem Incikli, Ali Murat Sünbül*

The purpose of this study is to define and investigate the education program of primary school teachers in Azerbaijan, teacher thoughts and problems about the program in terms of the aim, content, education level and assessment perspectives. Mixed method approach is used in this study. The qualitative data collection tools used in this study are document review and interview while quantitative tool being used is questionnaire. Quantitative data is collected from the questionnaire done through Internet or by meeting face to face with reachable instructors working in seven (not including paid or scholarship) faculties accepting Primary School Teacher Program students according to the National University Entrance Exam. According to the results of the study, it is concluded that Soviet period practices are still in effect on Azerbaijan education system, teachers don't want to work with low salaries in places other than Baku and primary school teacher programs moved to lowest placements in students' education choices and the number of female primary school class teacher candidates increased while males did decrease.

**Keywords:** Azerbaijan, Teacher training, Primary school teacher, Curriculum

## PRIMARY SCHOOL TEACHERS' ATTITUDES TOWARDS STUDENTS' UNDESIRED BEHAVIORS

*Esra Balgalmiş*

The aim of this study is to identify primary school teachers' attitudes towards students' undesired behaviors in classroom context. The study was conducted in 2014-2015 academic year spring semester. The sample of the study was 245 primary school teachers. The data collection tool was sent to 245 teachers in order to fill out. The data collection tool includes 10 case related to students' probable undesirable behaviors that teacher encounter in the classroom. The data were analyzed using descriptive techniques and representation tools. According to results the most undesirable student behaviors was students' physical and verbal violence to their friends, their irrelevant behaviors to the course content, their disruptions to the flow of the lesson, cheating, refraining from taking responsibility of the class work, teasing with their classmates, and cleanliness. Teachers attitudes to this undesired behaviors was mostly short-term solutions such as being angry to the students, warning them verbally, breaking their notes, forcing them to confessing their fault and applauding, depriving students from the award, forcing them to sit in the first desk of the class, assigning them as a class president, changing the desk of the students, sending them to the school discipline committee, ignoring their faults, advising their friends to leave them alone, and keeping eye contact. However, such measures are not intended to prevent the re-emergence of the undesirable behaviors. Besides, relatively less preferred attitudes but more positive solutions to the students' undesired behaviors were, not intervening every students fault, giving assignments related to their point of interest, supporting them to solve the problem with each other, meeting personally, informing students about how students shake their trust to them, playing games, putting award-winning goals, asking easy questions to engage students into the lesson, making cooperation with the family. The results suggest that the teachers should approach the undesired students behavior with long term and more constructive solutions.

**Keywords:** Class management

## PROFESSIONAL DEVELOPMENT PROGRAM FOR SCIENCE TEACHERS: STRENGTHENING THE INTERDISCIPLINARY TIES IN SCIENCE CLASSES

*Esra Bozkurt Altan, Serhat Ercan*

Theoretical explanations and experimental researches' results about STEM Education approach indicate that the approach was supportive of 21st century competencies. This situation brings the attempts to extend the STEM education to the fore front. The success of these attempts depends considerably on the development of teacher competence about STEM Education. Worldwide implementing indicates the existence of different alternatives for STEM education; however, in terms of our country, the best way of the STEM education, the other disciplines to be integrated in science and math lessons. When educational programs concerning about science and math teachers' training are reviewed, it has been seen that the teachers have not been trained towards the integrated education pedagogy. The current state to teacher training requires dealing with different perspective both pre-service and in-service to get a better of STEM education situation in our country. This study aims to introduce as a professional development program "STEM Education Approach: Strengthening the Interdisciplinary Ties in Science Classes" project supported by TUBITAK, identified positive outcomes on qualification of teachers. The Project was conducted with the participation of 24 science teachers working in public schools from 7 different regions and from 7 different universities in cooperation with the researcher. The current Project to be conducted in this line aims to introduce various model targeting the implementation of STEM education to science teachers. In the project, we tried to allow several models towards implementation of STEM education to introduce science teachers. Under the guidance of experts and sample practices, in which they actively participate in the panels where STEM educational approach is discussed the participants were a 8-days full time program within the framework of presenting their own application modules. Considering the obstacles of implementing the STEM Education, as professional development program, the introduction of theoretical infrastructure and implementation process of this project, which created concrete out comes is expected to provide significant gains for the researchers of teacher training.

**Keywords:** Science teachers, STEM education, Professional development

## PROSPECTIVE MATHEMATICS TEACHERS' VIEWS ABOUT MATHEMATICAL MODELING

*Alattin Ural*

The aim of the research is to determine prospective mathematics teachers' views about mathematical modeling. 45 final year students in the department of primary mathematics education attended the research. The students were taken "mathematical modeling in mathematics education" course by the researcher during fall semester of 2015-16 academic year. In the courses, the students were presented mathematical modeling examples in various type and difficulty levels. In the next period, the students were asked to produce real life mathematics problems and set a mathematical model for this problem. The students were asked to write their opinions about mathematical modeling at the end of the semester. The current research is a mixed research and the model applied in the study is exploratory design. Systematic descriptive method was conducted in analysis of the data.

**Keywords:** Mathematical modeling, Prospective mathematics teachers' views

## PROSPECTIVE TEACHERS' PERCEPTIONS OF ASSESSMENT AND CHOICES OF ASSESSMENT TASKS

*Kemal Izci, Gürbüz Çalişkan*

Based on the recent developments in learning sciences, constructivist and social learning approaches have taken place of behaviorist learning. This change has required change in assessment and it is highlighted to use assessment troughout instruction as opposed to just using it at the end to provide summative grades. However, studies have shown that changing teachers' traditional perception of assessment is hard and even if teachers understand benefits of modern assessment practices, they choose to use traditional assessment practices during their instruction (Heritage, 2007). One of the main reason for this is that teachers have more practical experiences with traditonal assessment practices as students and teachers and they lack experiences with successful modern assessment practices. Furthermore, assessment related courses they took and their assessment experiences during teacher training infleunce their understanding and practices of modern assessment (Siegel & Wissher, 2011; Otera, 2006). Thus, this study aims to explore the changes in prospective teachers' perceptions of assessment and the assessment tasks they want to use after they completed an assessment course that designed based on the modern assessment approach. Data were collected from 89 prospective teachers studing at the department of Instructional Technology, Middle Shool Mathematics and Türkish Language. The 'Teachers' Perceptions of Assessment Scale' developed by Brown (2008) was used as pre- and post-test and an addional task was employed to elicit participants' choices of assessment tasks. Collected data were quantitatively analyzed by using SPSS-19 package program. Results indicated that teachers' perceptions of assessment (school accountability, student accountability, improvement and irrevelance) did not significantly change while teachers' choices of assessment tasks significantly changed toward more use of modern assessments. Based on the results, we can conclude that changing teachers' perceptions of assessment is hard and requires a long time process. The results also showed assessment courses that organized around modern assessment approach supports prospective teachers to choose and use more innovative assessment tasks.

**Keywords:** Teacher education, Perception of assessment, Assessment methods

## PROTECTION OF CULTURAL HERITAGE BY USING GEOGRAPHIC INFORMATION SYSTEMS: THE CASE OF KIRKLARELI

*Mehmet Kabakan, Doğan Savran, Gürkan Tuna*

Since it has hosted many civilizations from the ancient times to the Ottoman period, Kirklareli has a very rich cultural heritage. Kirklareli is located in a region which has examples of Turkey's unique natural and cultural wealth such as Istranca Mountains and the Iğneada Longoz Forests, it has natural areas suitable for organic farming and draws attention to the structure that hosts many historical features. Even if the information on the registered - unregistered cultural heritage is available, in the sense of protecting cultural heritage, it causes a lot of problems due to not being in an integrated system. Geographic Information Systems (GISs) ensure regular monitoring of these complicated data and contribute to their protection. In this study, using the possibilities of GIS provided by the latest technologies, the registered - unregistered historical monuments in urban and rural areas located in Kirklareli have been analyzed in the GIS database after location detection process using the GPS technology. The study has integrated numerical and verbal data using GIS technology and analysis has been performed in ArcGIS software.

**Keywords:** Architectural heritage, Protection, Geographical information system, Registered-unregistered historic structures

## QUESTION ASKING PROFILES OF PROSPECTIVE MATHEMATICS TEACHERS ACCORDING TO BLOOM TAXONOMY

*Rezan Yilmaz*

Asking question is an important component in education, cognition and learning theories (Gall, 1970; Graesser & Person, 1994), and questions are used to check on students' comprehension, to encourage their creativity, to stimulate their critical thinking, to determine their grades and for other purposes (Blosser, 2000). Therefore, it is very important that teachers have the ability to ask questions which are qualified and proper for their purpose. This study aims at revealing what kind and which level prospective mathematics teachers ask questions about a concept. For that purpose, 131 prospective mathematics teachers asked various questions related to some concepts that are based on Blooms' cognitive domain taxonomy. The obtained data from these questions was analysed descriptively by the experts in the field. The results of the study indicates that majority of the prospective teachers ask at application level, more than half of them ask at both knowledge and analysis levels, nearly half of them ask at comprehension level. But majority of them do not ask at synthesis level and also nearly all of them do not ask at evaluation level.

**Keywords:** Prospective mathematics teachers, Bloom TAXONOMY, Asking question

## QUESTIONNAIRE ADAPTATION FOR SOCIAL SCIENCES

*Bülent Alagöz*

Measurement tools developed for one culture can be used for a different culture. To be able to successful in this aim, measurement tolls have to be adapted. Questionnaire adaptation is not only translating a measurement tool developed in a different culture to translate another one, but also determining its psychometric properties (reliability and validity). Adapting questionnaire is cheaper and faster than developing questionnaire. Test adapted from original test will be more reliable test when original test is to be well known and reliable. When aim is especially doing cultural comparison, adapting study will be more appropriate to do an equivalent comparison. Aim of this study is present a road map about questionnaires which will be adapted for social sciences.

**Keywords:** Questionnaire adaptation, Validity, Reliability

## RECENT RESEARCH STUDIES ON THE FATIH PROJECT

*Ismail Sahin*

The number and variety of technologies increases every day. These technologies affect not only our lives but also educational learning environments. To successfully integrate these technologies into any educational program, teachers and students need awareness of available technologies. Also, they should

have an understanding of how these technologies can support them with teaching and learning. In Turkey, the FATIH Project called Movement of Enhancing Opportunities and Improving Technology and initiated by the Ministry of National Education provides teachers and students with technology-supported educational environments. With this project, 42.000 schools and 570.000 classes will be equipped with the modern technologies such as tablets and LCD Interactive Boards. FATIH Project is composed of 5 different components: (1) Providing Equipment and Software Substructure, (2) Providing Educational e-content and Management of e-content, (3) Effective Usage of the ICT in Teaching Programs, (4) In-service Training of the Teachers, and (5) Conscious, Reliable, Manageable and Measurable ICT Usage. In this presentation, recent studies on the FATIH Project and their initial findings will be discussed.

**Keywords:** Educational technology, FATIH project, Literature review

## RECOMMENDER SYSTEMS FOR E-LEARNING ENVIRONMENTS

*Emin Talip Demirkiran*

E-learning systems are the systems that allows us to reach the educational information via the Internet. Thanks to the e-learning environments, people can get educated anytime and anywhere with the help of the electronic devices such as computers, TVs, smartphones or mobile devices and thus the time and location problem needed for learning is eliminated. These kind of systems provide resources for what their users want to get informed and most of the time they decide for which resources to be used by taking the teachers or learners recommendations. However, one of the major problems for resources selection is determining which the most important ones from thousands of documents are. Recommender systems that frequently used in recent years especially in e-commerce applications have been started to be used in e-learning environments as well to remove this kind of problems. In this way, recommender systems have recently become an indispensable part of e-learning systems. In this article, recommender systems are examined in general and those systems proposed for e-learning environments are investigated.

**Keywords:** Data mining, Recommender systems, Collaborative filtering, E-learning

## REFLECTION OF THE GREAT DEPRESSION OF 1929 ON SOCIAL STUDIES THEMATIC PROGRAMS APPLIED IN TURKEY

*Yusuf Keskin*

Social studies is an interdisciplinary course to be taught in elementary school which brings together different disciplines of social sciences. Within the scope of this course, students are expected to confront with their economic decisions, become conscious consumers and make the right decision on economic issues. For this reason, topics of economics should be included within the scope of social studies course. It is known that economic issues have taken place more or less in the programs of social studies thematic courses applied from the establishment of the Republic to the present day. In the first program in the history of the Republic, “The First School Curriculum” dated 1924, economics was mainly underlined in the geography course. Due to the wars lasting for many years, the newly established state was in such a difficult situation economically as in every aspect. This situation should be considered within the conditions of the period, yet the economic, political and social developments have directly affected the applied curriculum. As the World Great Depression of 1929 affected states worldwide, it also affected Turkey

deeply, and these effects continued until the end of the 1930s. The objective of this study is to determine the reflection of the World Great Depression of 1929 on social studies courses applied in Turkey (history, geography and civics/citizenship). Main data sources of the research are elementary school curriculums dated 1936 and 1948 that were published after the year 1929. For this reason, the document review of qualitative research methods has been used in this study. In addition to the programs mentioned in this study, critical and descriptive studies on Turkish history of education and economics have been used as a secondary data source. At the end of the study, it has been determined that economic depression of 1929 had affected social studies courses (mainly geography). While this effect was more dominant in the curriculum of 1936, it also continued in the curriculum of 1948.

**Keywords:** Social studies, Economy, The World Great Depression of 1929

## RESEARCH FOR GRIT LEVELS OF PROSPECTIVE TEACHERS IN TERMS OF DIFFERENT VARIABLES

*Ömer Beyhan, Gökhan Baş*

The meaning of the grit in TDK is determination of defeating obstacles in a job. When Duckworth, Peterson, Matthews and Kelly (2007)clarified the grit , they said “the grit is determination on longtime goals and desire level.”. And the also emphasized the grit’s importance in success and intelligence measuremnt. Even Duckworth and Quinn (2009) defended that the grit as explanatory of academic success is more effective than intelligencce grade. There are studies defending the grit’s relation wit self-arragment, self-dicipline and goal tendency and the grit’s importance in explaning these concepts(Duckworth&Qouinn,2009;Peterson&Seligman,2004). In thish research the relation between future teachers’ successes and grits are examined according to sex and age factors. In this research descriptive hatching model was used aiming to put forward the relation between success and grit. In 2015-2016 Education Year Spring Term in NEU Education Faculty 280 last clas students in different departments participated in this research. As a device to collect data The Grit Scale developed by Duchworth and Quinn and adapted to Turkish by Sarıçam and the others was used. And also in research these tecniques are used to analyse datas;frekans, percentage average, standard deviation and t test. The datas gathered as a result of measurements during research was done in computer by SPSS programme. It is seen that the grit point averages of Education faculty last class students are in intermediate level, the girls’ and the 25+ ages’ students’ grit point averages are higher than other groups’ grit point averages.

**Keywords:** : Achievement, Success, Personality, Grit, Performance

## RESEARCH TRENDS IN LEARNING ANALYTICS FROM 2010 TO 2015

*Mustafa Koç*

New technologies facilitate to track and store almost every footprint that users leave behind in digital environments. Such traces comprise big and rich data about user behaviors and interactions. The recent increase in the number of educational materials becoming online has started new research interest in how this data can be used to improve teaching and learning. Accordingly, the field of “learning analytics” has emerged and become a key technology for educational sector. Learning analytics is the collection and analysis of data about learners and their contexts for the purpose of modeling optimum and personalized learning. Since the field is in its infancy stage, it is important to keep up with the related literature. This study aims to examine current research trends and issues in learning analytics based on the articles

published in refereed leading journals from 2010 to 2015. It investigates both quantitative and qualitative characteristics of related empirical studies across the years. Articles were recruited from those journals indexed by Social Science Citation Index (SSCI) and Science Citation Index Expanded (SCI-Exp) through web searching in Web of Science database (http://www.isiknowledge.com). These journals were selected because they show consistent quality under rigorous peer-review and objective evaluation process. Content analysis with manual coding was employed to review these articles based on their publication years, locations, subject areas, research purposes, research methods, and participant levels. Frequencies and percentages were calculated and graphed for each characteristic to show its distribution by years. The findings of this review may provide insights for educators in order to benefit from learning analytics in their teaching. A summary of previous research may also contribute to further exploration of educational potentials of these tools.

**Keywords:** Learning analytics, Research trends, Content analysis, Published articles

## REVELATION GENETIC AND MOLECULAR ABNORMALITIES BY IMMUNOHISTOCHEMICAL TECHNIQUES IN HUMAN CANCERS

*Omar Laouar, Mounira Bensalem, Fatiha Yassi, Abdelaziz Lankar*

Cancer is currently regarded as a genetic disorder in which the normal control of cell growth is lost. The abnormality is the essential genetic mutation or transmitted through germ cells or, more commonly, acquired in somatic cells or Immunohistochemistry is a method that highlights proteinaceous substances in the cells on histological preparation based on an antigen-antibody reaction. This relatively easy technique to realize an especially much less expensive than the molecular and genetic techniques is widely used for the diagnosis of various cancers by the detection of proteins related to cell differentiation and also in the prognosis of tumor as is the For tumor aggressiveness proliferation markers or expression of certain genes (proto-oncogene C-erb B2, the p53 tumor suppressor gene, the receptor of the Epidermal Growth Factor EGF-R or apoptosis such the bcl2 ... etc). The identification of molecular subtypes in the same cancer reveals the heterogeneity of these tips to tumors and different therapeutic responses suggested the existence of molecular groups single histology and immunohistochemistry which plays an increasingly critical in the personalization of cancer disease and its treatment. Access to new treatments called targeted, is based on the realization of molecular biology tests, and immunohistochemical default even if they are less specific and less sensitive, they remain a vital interest in the identification of tumor biomarkers and should be generalized to all health facilities supporting cancers.

**Keywords:** Cancer, Genetics, Immunohistochemistry, Molecular biology

## RIGOROUS ASSESSMENT OF GEOTECNICAL ENGINEERING PARAMETERS IN STRUCTURE-FOUNDATION-SOIL INTERACTION PROBLEMS

*Yeşim Tümsek, Erkan Çelebi, Osman Kirtel*

The required geotechnical engineering parameters for the computational modeling of the soil-structure interaction problems, based on direct method or sub-structure approaches, are taken from the soil reports. Without making theoretical co-relation with other engineering soil parameters and accurate evaluation by using proper methods on the obtained soil data from the laboratory and the field test, which

are using directly in seismic analysis of the soil-structure coupled system, leads to misleading results. The foundation damping, named as flexible base system damping, plays a significant role on the general behavior of the soil-structure coupled system. This damping is composed of the contribution from geometrical and material damping. Herein, the geometrical damping refers to the dissipated vibration energy due to wave spreading away from the dynamic source. This study focused on material damping representing the energy consumed in the soil material by the strain deformation under cycling loadings. The mathematical model proposed in this study for the soil-structure problem is based on the substructure method. Initially, the soil is separated distinctly from the superstructure in this method. The deformability of the soil is modeled by springs and the dissipating vibration energy due to both radiation and material behavior is modeled by dashpots. In order to compute numerical quantities of the fictitious elements, corresponding to the dynamic stiffness of the foundation medium, the impedance functions have been utilized. In the numerical analysis, the dynamic impedance functions of clayey soil having different plasticity index have been estimated dependent on the reduced shear modulus for different chosen earthquake levels. The foundation damping ratios has been calculated for both surface and embedded rigid footings. The response spectrum curves have been achieved for clayey soils in different plasticity. The non-linear behavior of the soil as well as the radiation damping ratio of the soil-structure coupled system was also taken into consideration in obtaining these curves. The results of this study are important for structural engineers, dealing with the advanced problems included in the dynamic soil-structure interaction, to provide practical information about the correct evaluation of the geotechnical parameters in seismic analysis.

**Keywords:** Dynamic stiffness parameters, Reduced soil shear modulus, Shear deformation, Hysteresis damping, Earthquake ground motion

## ROLE AND MALATYA COMMUNITY CENTER CASE STUDY OF THE HISTORICAL PROCES PEOPLE'S HOUSE

*Mesut Aydin*

Community Centers, founded by Atatürk's directives, and in a short time is a very important cultural institutions spread all over Turkey. After the proclamation of the Republic, it made reforms in many areas in the cultural field; but he was faced with the problem of the reforms carried out can not be described as necessary to the public. In this respect, reforms of public goods to be had common needs, such as a drying Turkish Hearths. For this purpose, instead of the closed Turkish Hearths February 19th 1932, the Community Centers have been established and the first in Adana, Afyon, Ankara, Aydın, Bursa, Çanakkale, Denizli, Diyarbakir, Eskisehir, Istanbul, Izmir, Konya, Samsun and Van have been activated by opening branches . Community centers, taking into account the necessity of mobilization period have access to the read-to write with public schools and carried out this activity with rural branches peasantism. English, French and German as foreign language courses; courses on preserving and jam making to assess fruit and vegetables are grown in the region; agriculture and agricultural training courses for informing the farmers; pictures, music and fine arts talent has organized courses on other areas. In addition, the show transmits to the public through the branches of national, cultural and educational films, the most beautiful examples of non-formal education is given at the conference of the community center site. The aim of this study is to demonstrate examples of community centers for educational activities carried out in the context of Malatya people's house formal and non-formal education.

**Keywords:** People' house, Education, Historical proces

## ROUGH SET BASED FUZZY NEURAL NETWORK METHOD USING WEATHER FORECAST FOR ANKARA

*Adem Öztürk*

Fuzzy neural networks are widely used to produce an estimate of soft computing techniques under the field. Estimated production techniques are used today in most areas. Weather forecasting is one of them.. The high accuracy results were obtained using ANFIS(adaptive neuro-fuzzy inference system) the weather forecast. However, the estimates of the accuracy of the system is required to produce, which will produce faster results without too much loss. Rough set theory is used where data mining and fuzzy logic field to increase the speed of the system. This study benefited from rough sets theory using ROSE2 software. It is intended to remove some of the attributes before the estimation results. These attributes should be little impact to produce estimates or there should be no effect. Weather forecast of Ankara with this system have been made. The obtained results are compared to the system without too much loss of accuracy has been found to produce faster estimates.

**Keywords:** Fuzzy neural network,Rough sets theorem, Weather forecasting, ANFIS, ROSE2 software

## ROUGH SETS FOR FEATURE SELECTION: AN OVERVIEW

*Rasim Çekik, Sedat Telçeken*

Feature selection is an important issue in data mining. The purpose of the feature selection is determine the significant features and reduce a subset of features consisting of the most important features. Rough set theory (RST) provides a useful mathematical concept to uncertainty and vagueness of decision system and successfully used to identify the subset of the set of all features of the decision systems. This paper focus on the review of the techniques for features selection using RST.

**Keywords:** Feature selection, Rough sets theory, Data mining

## SCHOOL SOCIAL WORKER & ASSIGNED POSITIONS OF OTHER MEMBERS OF PROFESSION

*Melahat Demirbilek*

There are studies towards the psycho-social requirements and issues of the students studying in the primary and secondary schools, under the framework of school social work. Within this respect, those who are assigned in the schools as social worker are called “school social workers”. The School social workers are not the only members of profession who support the students with psycho-social assistance. The school social workers are a member of a multidisciplinary task force that consists of the professionals at the school (e.g. school psychologist, psychological consultancy and school counselor). However, from time to time there can be a role conflict among the team members. There are differences from the perspective of the roles and missions/tasks among these occupational groups who are the members of this multidisciplinary team. School Social Worker: Under the framework of ecological/system approach and “individual in the environment” concept; the social worker makes supportive studies towards the students and their families under risk, they help to the students adapting the school, assists the students, their families and instructors facing social, physical, emotional and economic problems, plays a role to establish communication between home and school, analyzes the living conditions of students, follows the students who are transferred to other associations and they take part in the activities at school. School Counselor: The school counselors provide individual or group counseling services; organize orientation programs to

the freshmen. They establish a connection between home and school, assist students with their schedules, follow their academic development, and guide the students about their future careers. The school counselors apply certain psychological measurement tools to determine the individual characteristics of the students and to explore the students with special needs. School Psychologist: The school psychologists apply psychological tests to the students who are experiencing difficulties in learning or who have behavior problems; they evaluate the students emotionally, socially and cognitively and guide them in accordance with their individual characteristics to educational programs. They do individual and group counseling, and analyze learning issues and behavior problems.

**Keywords:** School social work, School social worker, School psychologist, School counselor

## SELÇUK HATUN AND FOUNDATIONS

*Fatma Korkmaz Hazar*

Selçuk Hatun Çelebi is daughter Sultan Mehmed and Kameri Hatun.She married to İbrahim Bey from Candaroğlu Family.After the marriage,they had two sons called Yusuf and İshak Bali,and two daughters called Hafsa and Hadice.Her daughter Hadice Hatun married to Vezir-i Azam Mahmud Pasa son of Mehmed Pasa who was one of the viziers of II.Murad Age.Selçuk Hatun was a woman known by her embassy during connection between Cem Sultan and Bayezıd.After she had spent her last years in suffer,she died on 26 th of October,1485(15 th of Shawwal,890)in Bursa and she was burried next to her father in Yesil Turbe(Green Tomb). Selçuk Hatun got a mossque in 1450AD(854MC),Mihraplı Bridge on Nilüfer River and a school in 1465AD(570MC)built.In addition to these,she got a hermitage in Balıkesir,one each Mosques in İstanbul and Edirne,She put in order foundation certificate-charter of her monuments in 1483AD (881MC)

**Keywords:** Selçuk Hatun, Foundation, Foundation certificate, Charter

## SELECTING USER-BASED COLLABORATIVE FILTERING ALGORITHM FOR USERS TO RECOMMEND PRODUCT FOR E-COMMERCE SYSTEMS

*Ismail Terzi*

With the widespread of Internet, e- commerce have become popular and e-commerce companies sell thousands of products without having to stock. People using e-commerce site has trouble with finding what they want among thousands of products. E-commerce site started to use recommender systems to guide their customer to find what they want. Collaborative Filtering (CF) is widely used in recommender system, recommends product to user by using other users' ratings. CF systems make prediction by using algorithms. Users give ratings to products and these ratings show users interest about product. In 1-5 rating system 1 is bad 5 is good rating. In order for a user to get prediction, user have to give rating to some product. In this study we have tested user-based CF algorithm with different number of neighborhood and normalization. We have seen that different number of neighborhood and different normalization gives different prediction result, among different prediction result there is a best list. While using recommender system users see list of product that did not see before, this list of products recommended to the user by using CF algorithms. In that recommended list users can select and buy product. User can find right product also seller can sell more product. We showed that among 100 ratings, 70 ratings can be predicted by using CF algorithms.

**Keywords:** Recommender system, Collaborative filtering

## SELECTION OF FINAL PROJECT TOPIC USING AHP AND TOPSIS METHOD: A CASE STUDY

*Ismet Söylemez, Ahmet Doğan, Uğur Özcan*

Specializing in the field to become clear with final project for undergraduate students. While all students take compulsory lessons during their education, elective courses are selected according to the area they want to specialize and/or interested in. Final project topic is determined according these lessons. However, selection of the final project topic is very difficult for undergraduate students. Some criteria are considered as lectures, application or theory study beginning of the semester by students. Therefore, multi criteria decision making methods are applied for these types of problems. TOPSIS method is one of the multi objective decision making methods. The aim of this study last year students of Industrial Engineering student's thesis topic selection of TOPSIS method is applied to determine the area of their choices. The weights of the criteria to be used in TOPSIS are obtained using the AHP depends on decision maker. Super decision software is used for calculation of the weights. Results demonstrates that mathematical modelling is more suitable alternative for decision maker.

**Keywords:** Research project, Multi criteria decision making, Course selection, TOPSIS, AHP

## SELF-REGULATION AND INTERACTIVITY TYPES AS THE PREDICTORS OF LEARNER SATISFACTION WITH FLIPPED COURSES: EVIDENCE FROM A VOCATIONAL COLLEGE

*Harun Cigdem, Mustafa Ozturk, Abdullah Topcu*

Learner satisfaction, which implies learners' positive perceptions of their learning experiences in a particular learning environment, is assumed to be a critical indicator of academic achievement as well as the effectiveness of a method. Flipped courses, receiving a growing interest among contemporary instructional designs, appear to be a promising pedagogical model that entails high learner satisfaction through a variety of features. One is related to learners' self-management of their own learning processes throughout the courses. The other feature is about the way learners interact with their instructors, peers and the content. A lack of appropriate educational technology would lead to limited interactivity and self-regulation, which might in turn decrease learners' satisfaction with the courses. In this study, we assessed the values of self-regulation and interactivity features (the interactivity among learners, between learners and the instructor, and between learners and the course content) as the factors impacting learners' satisfaction with the flipped courses. The participants (n=243) were from a two-year vocational college and took the courses Computer Use, Operating Systems, and Computer Programming in a flipped way in the 2015–2016 academic year. The data were collected via an online questionnaire and analyzed through linear regression analyses. The general results of the study revealed that self-regulation, interactivity between learners and the course content and among learners were found to be the significant predictors of learner satisfaction with the flipped courses. On the other hand, the interactivity between learners and the instructor did not appear to effect learners' satisfaction with the flipped courses, which could imply the changing role of instructors in contemporary learning environments. Accordingly, the flipped courses seem to eliminate the traditional role of instructors (being at the center of all interactions) and bring the self-regulation along with the interactivity among learners and with the course content to the front.

**Keywords:** Flipped course, Interactivity, Self-regulation, Satisfaction

## SHALLOW CRUST STUDY WITH GRAVITY DATA USING HGM AND TAM TECHNIQUES IN GAZIANTEP SOUTHERN TURKEY

*Ali Elmas*

The aim of this study is the edge detection and the depth estimation of the possible mineralized structures of an area in Gaziantep-Southern Anatolian region, Turkey. To achieve this, horizontal gradient magnitude (HGM), and tilt angle map (TAM) methods which are two various boundary analyzing techniques have been used. The edge detection technique is based on the HGM and TAM obtained from the first vertical gradient of a gravity anomaly. The high value contours of HGM and zero contours of the TAM correspond to the boundaries of geologic discontinuities and are used to detect the linear features in gravity data. The results indicated that depth values from these sources have ranged between 20 and 40 m.

**Keywords:** Gravity vertical gradient, Horizontal gradient magnitude, tilt Angle, Edge detection, Depth estimation

## SHARED LEADERSHIP AND AMBIDEXTROUS LEARNING IN UNIVERSITIES - THE NEXUS FOR INNOVATIVE ENVIRONMENTS?

*Ana Martins, Isabel Martins*

This study focuses on whether Universities are appropriate environments to foster knowledge creation, sharing and diffusion. A culture of innovation is fundamental for organisational sustainability in the current globalised world. New competencies create and improve organisations' cognitive thinking models and enable organisations to develop their collective, interactive and participative learning capabilities. Transactional and transformational leadership behaviors are concurrent with innovation results in diverse ways. Furthermore, the fundamental premise that dissimilar leadership behaviors support different aspects of organizational learning highlight the importance of the leadership self-efficacy construct and its association with learning to promote high levels of employee engagement and satisfaction, as well as organizational performance. Extant theories reveal the dynamics inherent in three levels of learning – individual, group and organization, the flows of learning between these levels - feedforward and feedback, including two learning loops, i.e. 'exploitation' and 'exploration'. Tension between these two learning loops leads to ambidextrous leaning; moreover, innovation capabilities also benefit from the dynamics in these two loops. Research on exploitation and exploration is budding due to its theoretical significance and practical importance. Primary data was gathered from a sample of university students in Gaziantep, based in Southern Turkey, both from under and postgraduate Business degree programmes. The purpose of this study is to determine whether University students acquire appropriate higher level skills to promote knowledge creation, sharing and diffusion enabling shared leadership in order to demonstrate the nexus between leadership behaviours, organizational learning and innovation.

**Keywords:** Innovation, HEIs, Knowledge creation, Leadership, Organizational learning, Performance.

## SIMULATION AND ESTIMATION OF ASPHALT ROAD DETERIORATION USING GPSS

*Sema Bodur, Esranur Galip, Serdar Korukoğlu*

Transportation is the essential part of the daily life. In the transportation, comfort, safety and speed is dependent on ability of a road. Deterioration in the road decreases life time of it and endangers people's lives. There are many parameters which cause deterioration. This parameters summarized as; temperature, humidity changes and differences, continuous overload, harmful chemicals. The deterioration can increase probability of the traffic accidents. Due to the researches, it is one of the most important reasons of traffic accidents. Asphalt's durability is based on mixture composition, compaction rate, load in the road and temperature. The most effective parameters are high temperature and effects of the continuous traffic overload on the layer of pavement. Especially in the developed countries, it plays a critical role that there are many heavy vehicles which often use city roads and highways. In this study, the estimation of asphalt's deterioration is made using GPSS (General Purpose Simulation System) simulation tool. It is possible to predict the operational decisions on extremely complex real world systems using GPSS simulation tool. Also, it is a comprehensive modeling tool covering both discrete and continuous computer simulation, with a high level of interactivity and visualizability. Hereby, we show simulation results as reports and dynamic graphics. The probability of asphalt deterioration is calculated due to parameters whose values are changeable in the elapsed time.

**Keywords:** Deterioration, Asphalt road, Traffic Load, GPSS

## SOCIAL MEDIA AND LANGUAGE TEACHING

*Agim Poshka*

The popularity of social media is evident in all spheres of life and in this regard this articles aims to reflect on the impact this media has in the language learning process. The focus is in creating utensils on using the increasing momentum of popularity that the social media have into the process of language teaching. The study investigates not only the impact but also the uniqueness that social media has and its role as the leading technologically mediated spaces. It reflects on the drastic changes in the study habitat in the public pedagogy. A number of learning opportunities are cited in the process to confirm that the pedagogical reality in the foreign language teaching process has changed drastically since the Grammar Translation method although some "constructivists" might argue that constructing a learning authenticity is unfeasible without the presence of technology and the vices inheriting it.

**Keywords:** Social media, EFL Methodology, Facebook, Twitter, Non-traditional teaching methodology

## SOCIAL STUDIES TEACHERS' USAGE LEVELS OF HIDDEN CURRICULUM IN VALUE EDUCATION

*Ozkan Akman, Çiğdem Kiliç Çarşanbali*

The purpose of this study is determining social studies teachers' usage levels of the hidden curriculum, which has an important place in making students acquire values. The hidden curriculum is one of the 5 programs according to Posner's classification, and covers the subjects that are not included in the official curriculum like learning medium, social relations, and the applications that are not included in the formal

curriculum. Although the values are cared for and highlighted in the official Social Studies Program, mostly the cognitive acquisitions are emphasized in the dimension of educational status and measurement and evaluation. However, values are the behaviors that can only be acquired from a model in real life situations. The design of the study has been realized with the semi-structured interview technique, which is one of the qualitative research techniques. The study was conducted with 30 social sciences teachers selected on purpose from various cities. The answers of the teachers were encoded and classified as frequencies and percentages. In the end of the study, it was concluded that the hidden curriculum is not used in an efficient manner. It is recommended that in-service training must be provided on how to use the hidden curriculum for teacher candidates in many countries.

**Keywords:** Values, Hidden curriculum, Social studies

## SPECIFICITY OF THE USE OF METAPHOR BY OLD KABYLIANS (70-90 YEARS OLD) IN THEIR EVERYDAY SOCIAL INTERRACTION–CASE STUDY: THE KABYLIAN MINOR COMMUNITY IN ALGERIA

*Soraya Hamane*

Because of the significant role of metaphor in our everyday lives and in our culture, we almost all bring different interests to it, this is the reason why we tend and take the opportunity to check whether metaphors are much more powerful instruments dealing with our experiences rather than being ornamental. In other words, metaphors are not just a play with words or even a free play for ideas, but they should be in harmony with the social and historical settings with the beliefs and personal constructs of the society or micro society of the time. In this paper, we tend to demonstrate that metaphors not only make the Kabylian (the Berber minor community in Algeria) thoughts vivid and interesting, but they do actually structure their perceptions and understanding. Metaphor is pervasive in our everyday life, i.e., metaphors play a central role in defining the old Kabylians everyday realities. Our aim is to show clearly that our category of informants (70-90 years old) are not using metaphors just for shaping their views in life in present, but metaphors are setting up expectations for the future, i.e., metaphors are rooted in the beliefs, practices and intentions of language. Some hypotheses will be presented in this work. They will help pave the way to test, measure, argue and interpret the findings through observation and analysis on the bases of the Berber society (the Kabylians) and its environment.

**Keywords:** Specificity of metaphor use, Old Kabylians, Everyday speech

## STUDENT TEACHERS' ELECTRIC FIELD LINES REPRESEANTATIONS

*Işik Saliha Karal Eyüboğlu*

Models are representations of systems with pictures, graphs and figures and make the mystery and complexity of natural world perceivable (Harrison, 2001).For example, the abstract concept of magnetic field does not directly interact with students and it should be introduced by special teaching methods such as drawing field lines. Representation of electric and magnetism fields with lines is placed in the pedagogic-analogical models within the more general conceptual models, because they are used by teachers to explain the invisible objects to students via linking them to daily life (Van Driel and Verloop,1999). The representation of electric and magnetic field intensities as groups of field lines points to the importance of

models in science teaching (Günes et al.,2004).For this reason searching the tendencies of student teachers (STs) about understanding and using models may contribute to effective science teaching. In this study, answers to a question appearing in a General Physics examination taken by STs and requiring to draw electric field lines in two dimensions produced by a positively charged infinite plate. The aim of this study in which the method of document analyses was used is to compare the drawings of STs with the field lines appearing in books and conceptual models adopted by scientists. The study on the sample of 360 biology STs showed that 146 STs did not answer the question and 55 STs answered correctly. Drawings of 159 STs indicate that STs had deficient knowledge about electric field lines and their directions near the charged plate. One reason for deficient visualization and mapping by STs of the electric fields seems to be the lack of complete two-dimensional field maps in text-books although elaborate calculations for some special points take place. Using concrete materials and computer simulations related to field lines will contribute to understand models.

**Keywords:** Electric field, Field lines, Student teacher

## STUDENTS' REASONS WHEN CHOOSING THEIR UNIVERSITY AND THEIR SATISFACTIONS, EXPECTATIONS AND THOUGHTS ON THE SERVICES PROVIDED BY THE UNIVERSITY

*Beste Çağla Özata*

This research is aimed at the first year university students to determine their reasons for choosing their school and the degree of their satisfaction with the services tendered by the school and also to determine their views and expectations of the schools services. The research consists of arbitrary 20 first year students (10 male 10 female) of a university, studying during the 2015-16 fall semester in TRNC. Data collection tool consists of semi- structured open ended questions which are developed by the researcher. It is used qualitative research method in study. Datum are collected with interview forms. The answers of the students are scrutinized with content analysis and data reduction methods. These answers are allocated conceptual codes.Descriptive analysis method is used in the research. At the end of the survey the students stated their reason for choosing the school as the quality of the education and adequateness of their marks. The students also stated that they were unhappy with the services provided by the school in general, such as the lack of equipment in classrooms and the poor transportation services. The improvement in transportation by means of adding more buses was stated as one of the expectations of the students from the school. It is thought that the research and the collected datum showing what the students look for when choosing a school and determining their degree of satisfaction and expectations from the school and it's services might act as a guide, both for schools and the future students.

**Keywords:** University, Satisfaction, Expectation

## STUDY OF SOME LEARNING DIFFICULTIES IN PLANT CLASSIFICATION AMONG UNIVERSITY STUDENTS

*Lhoussaine Maskour, Anouar Alami, Boujemaa Agorram, Moncef Zaki, Sabah Selmaoui*

The plants constitute a major subject of Biology education in university. There are indeed lessons of botany, even though the plant is no longer a scientific concept but only represents a daily concept in terms of historical problems. This study aims to identify some difficulties related to teaching of plant classification

and evaluate university students knowledge in plant biology and their ability to mobilize this knowledge to classify plants. We used the questionnaire and semi-structured interviews as an investigative tool. Preliminary results show that students find significant difficulties in identifying species by using key determination.

**Keywords:** Botanical classification, Learning difficulties, University students

## SUPERVISIOR TEACHERS WORKPLACE DEVIANCE BEHAVIOURS DURING OBSERVED BY THEIR TEACHER CANDIDATE STUDENTS

*Ali Unal, Atila Yildirim, Abdullah Sürücü*

Teachers sometimes behave contrary to the expectations and norms of school. These behaviours are termed “workplace deviance behaviours”. In workplace deviance, employees conciously violate the rules of the organization, which, in turn, has the potential to negatively affect the organization itself, its members, or both. The aim of the research is to determine workplace deviance behaviours of supervisor teachers who assigned the school experience and teaching practice course for the education faculty students. Data have collected by Teachers’ Workplace Deviance Behavior Scale (TWDBS) developed by Unal (2013). Scale consists of four dimensions: interpersonal deviance, education deviance, time deviance, and collaboration deviance. The research has been carried out on those students who participated in the school experience course application at Necmettin Erbakan University Ahmet Kelesoglu Education Faculty in the Academic Year 2015-2016.

**Keywords:** Workplace deviance, Suprevisior teacher, Teacher candidate

## SURPRISING DEVELOPMENTS IN MATHEMATICS

*Mohammad Hajari*

Statistics show that in the last years, there is a reduced tendency of students to learn exact sciences or to seek careers which do not have mathematics in graduate level studies at universities, and when completing their studies, they cannot find a suitable job because they have the conception of mathematics as: theoretical, mechanical, abstract and overwhelming. It is therefore proposed, in this study, a change in the tendency by introducing a new Paradigm, as the new DIMATVIS Method, created by Mohammad Hajari, an electronics engineer with more than 10 years of experience in his native country (Iran), working in assembly factories of radio, television and household appliances, and also with more than 30 years of experience in Bolivia as a Professor in technical education and as a founder of schools, colleges, technical institutes and the creation of the Universidad Tecnológica Privada de Santa Cruz (UTEPSA) in which he has been working for over 14 years with the mentioned DIMATVIS method. The DIMATVIS method (for its acronyms in Spanish “Didactics of Visual Mathematics”), is practical, demonstrative, tangible and enjoyable which gives students a better comprehension and assimilation concepts and solutions in mathematics. During the method’s process of development, new surprising and innovative concepts, definitions and graphics were found in: Arithmetic, Geometry, Algebra, Logarithms, Trigonometry, Derivatives, Integrals and Limits, which are very useful and practical for learning and teaching mathematics at different levels.

**Keywords:** Arithmetic, Geometry, Algebra, Logarithms, Trigonometry, Derivatives, Integrals and limits

## SYNTHESIS AND ACIDIC PROPERTIES OF 3-ALKYL(ARYL)-4-(4-ISOPROPYLBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

*Haydar Yüksek, Gül Kotan*

In this study, firstly nine novel 3-alkyl(aryl)-4-(4-isopropylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones (2) requiring for this study were synthesized from the reactions 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with 4-isopropylbenzaldehyde. The nine new compounds synthesized were characterized by using IR, 1H-NMR, 13C-NMR and UV-vis spectral datas. The second part of the study, synthesized nine 3-alkyl(aryl)-4-(4-isopropylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones were titrated potentiometrically with TBAH in non-aqueous solvents (isopropyl alcohol, tert-butyl alcohol, acetone and N,N-dimethylformamide) and graphs were drawn (Erdoğan, Aslan, Demirbaş & Yaylı, 2006) for all cases. The half neutralization potentials and pKa values were determined by half neutralization method (Ocak, 2003, Alkan, Bahçeci, Yüksek, Ocak & Özdemir, 2002). The effects of solvents and molecular structure upon acidity were also discussed (Bahçeci et al., 2002; Gündüz, 1988).

Acknowledgements: This work was supported by the Scientific Research Projects Coordination Unit of Kafkas University (Project Number: 2014-FEF-35).

**Keywords:** TBAH, pKa, Half neutralization method

## SYNTHESIS AND ANTIOXIDANT ACTIVITIES OF 1-ACETYL-3-ALKYL(ARYL)-4-(3-CINNAMOYLOXYBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

*Murat Beytur, Haydar Yüksek*

1,2,4-Triazole and 4,5-dihydro-1H-1,2,4-triazol-5-one derivatives are reported to possess a broad spectrum of biological activities such as antifungal, antimicrobial, hypoglycemic, antihypertensive, analgesic, antiparasitic, hypocholesteremic, antiviral, anti-inflammatory, antitumor and anti-HIV properties (Yüksek et al., 1997). In this study, five new 1-acetyl-3-alkyl(aryl)-4-(3-cinnamoyloxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones (2) were synthesized by the reactions of 3-alkyl(aryl)-4-(3-cinnamoyloxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) (Yüksek, Beytur & Gürsoy Kol, 2014) with acetic anhydride and characterized by IR, 1H-NMR,13C-NMR and UV spectral data together with elemental analysis. In addition, antioxidant activities of 2a-e compounds were investigated. The antioxidant properties of the compounds were studied and evaluated using different three antioxidant assays, including reducing power, free radical scavenging and metal chelating activity. For the measurement of the reductive ability, Fe3+ - Fe2+ transformation was investigated in the presence of compound using by the method of Oyaizu (1986). The hydrogen atoms or electrons donation ability of the synthesized compound was measured by DPPH. using the method of Blois (1958). The chelating effect of ferrous ions by the compound was determined according to the method of Dinis, Madeira & Almeida (1994).

Acknowledgements: This work was supported by the Scientific Research Projects Coordination Unit of Kafkas University (Project Number: 2014-FEF-24).

**Keywords:** 4,5-dihydro-1H-1,2,4-triazol-5-one, Antioxidant assays, Reductive ability, Chelating effect

## SYNTHESIS AND ANTIOXIDANT EVALUATION OF NEW DI-[2-ETHOXY-5-(1-ACETYL-3-ALKYL/ARYL-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ON-4-YL)-AZOMETHINPHENYL] ISOPHTHALATE

*Faruk Kardaş, Haydar Yüksek, Özlem Gürsoy Kol*

In the last decade, a great deal of research has been devoted to the study of different types of new antioxidant compounds, either synthesized or obtained from natural sources which may at least minimise the deleterious effects induced by reactive oxygen species (ROS). Exogenous chemicals and endogenous metabolic processes in human body or in food system might produce highly reactive free radicals, especially oxygen derived radicals, which are capable of oxidizing biomolecules by resulting in cell death and tissue damage. A large number of heterocyclic compounds, containing the 1,2,4-triazole ring, are associated with wide ranges of biological activities. In this study, six di-[2-ethoxy-5-(1-acetyl-3-alkyl/aryl-4,5-dihydro-1H-1,2,4-triazol-5-on-4-yl)-azomethinphenyl] isophthalate (2) were synthesized by the reactions of 1 type compounds di-[2-ethoxy-5-(3-alkyl/aryl-4,5-dihydro-1H-1,2,4-triazol-5-on-4-yl)-azomethinphenyl] isophthalate (Yüksek, Kardaş, Albayrak & Alkan, 2015) with acetic anhydride. Then, the antioxidant properties of 2 type compounds were studied and evaluated using different three antioxidant assays; including reducing power, free radical scavenging and metal chelating activity (Blois, 1958; Dinis, Madeira & Almeida, 1994; Oyaizu, 1986).

Acknowledgements: This work was supported by the Scientific Research Projects Coordination Unit of Kafkas University (Project Number: 2011-FEF-31).

**Keywords:** Isophthalate, Azomethinphenyl, Reducing power, Free radical scavenging, Metal chelating activity

## SYNTHESIS AND CHARACTERIZATION OF SOME NOVEL 3-ALKYL(ARYL)-4-[2-(P-METHYLBENZENESULFONYLOXY)-3-ETHOXY]-BENZYLIDENAMINO-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

*Haydar Yüksek, Faruk Kardaş, Sevda Manap*

In the present study, nine novel 3-alkyl(aryl)-4-[2-(p-methylbenzenesulfonyloxy)-3-ethoxy]-benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-ones (3) were synthesized from the reactions of the corresponding 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with (p-methylbenzene-sulfonyloxy)-3-ethoxybenzaldehyde (2), which was obtained from the reaction of 2-hydroxy-3-ethoxybenzaldehyde with p-methylbenzenesulfonyl chloride by using triethylamine. The starting compounds 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) were prepared from the reactions of the corresponding ester ethoxycarbonylhydrazones with an aqueous solution of hydrazine hydrate as described in the literature (Ikizler & Un 1979, Ikizler & Yuksek 1993). The new compounds synthesized were characterized by using IR and 1H-NMR, 13CNMR spectral data together with elemental analysis.

**Keywords:** Synthesis, Characterization, 1,2,4-triazol-5-ones, 1H-NMR, 13CNMR

## SYNTHESIS AND IN VITRO ANTIOXIDANT ACTIVITIES OF SOME DI-[3-(3-ALKYL/ARYL-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE-4-YL)-AZOMETHINPHENYL] ISOPHTHALATES

*Özlem Gürsoy Kol, Haydar Yüksek*

Antioxidants are extensively studied for their capacity to protect organism and cell from damage that is induced by the oxidative stress. A great deal of research has been devoted to the study of different types of new antioxidant compounds, either synthesized or obtained from natural sources which may at least minimise the deleterious effects induced by reactive oxygen species (ROS) in the last decade. A large number of heterocyclic compounds, containing the 1,2,4-triazole ring, are associated with wide ranges of biological activities, such as antioxidant, anti-inflammatory, antimicrobial and antiviral activity. In this study, six di-[3-(3-alkyl/aryl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethinphenyl] isophthalates (3) were synthesized from the reactions of 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with di-(3-formylphenyl) isophthalate (2) that is synthesized from the reactions of 3-hydroxy-benzaldehyde with isophthaloyl chloride by using triethylamine. The structures of synthesized compounds were established from the spectral data. In the second part of the study, the antioxidant properties of the 3 type compounds were studied and evaluated using different three antioxidant assays: Including reducing power, according to the method of Oyaizu (1986); free radical scavenging activity, using the method of Blois (1958) and metal chelating activity, by the method of Dinis, Madeira & Almeida (1994).

Acknowledgements: This study was supported by the Scientific and Technological Council of Turkey (Project Number: TBAG 107T247).

**Keywords:** 1,2,4-Triazole, Antioxidant properties, Isophthalate

## SYNTHESIS, CHARACTERIZATION AND ANTIOXIDANT ACTIVITIES OF NOVEL 1-(4-METHYLPIPERAZINE-1-YL-METHYL)-3-ALKYL-4-(3-CINNAMOYLOXYBENZYLIDENEAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

*Haydar Yüksek, Murat Beytur, Özlem Gürsoy Kol*

1,2,4-Triazole derivatives have drawn considerable attention for the past few decades due to their diverse biological properties. Many 1,2,4-triazole derivatives are found to be potent antioxidant, anti-inflammatory, antimicrobial and antiviral agents. In this study, six novel 1-(4-methylpiperazine-1-yl-methyl)-3-alkyl-4-(3-cinnamoyloxybenzylideneamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones (2) were synthesized by the reactions of 3-alkyl-4-(3-cinnamoyloxybenzylideneamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with formaldehyde and N-methylpiperazine. 3-alkyl-4-(3-cinnamoyloxybenzylideneamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) were synthesized according to literature (Beytur 2014). The titled compounds characterized by IR, 1H NMR and 13C NMR spectral data. The antioxidant properties of the compounds were studied and evaluated using different three antioxidant assays, including reducing power, free radical scavenging and metal chelating activity. For the measurement of the reductive ability, Fe3+ - Fe2+ transformation was investigated in the presence of compound using by the method of Oyaizu (1986). The hydrogen atoms or electrons donation ability of the synthesized compound was measured by DPPH. using the method of Blois (1958). The chelating effect of ferrous ions by the compound was determined according to the method of Dinis, Madeira & Almeida (1994). BHT, BHA, EDTA and α-tocopherol were used as reference antioxidant compounds.

**Keywords:** 1,2,4-Triazole, Mannich Base, Antioxidant, Metal chelating

## TEACHER PERCEPTIONS ON THE LEVEL OF USING LEARNING STRATEGIES BY STUDENTS IN SOCIAL SCIENCES CLASSES

*Erol Koçoğlu*

While social sciences teachers use various strategies, methods, techniques and materials in the learning and teaching process in Social Sciences classes in order to increase the meaningful learning levels of the students, it is also expected from students to develop several activities. The most important of these activities is the learning strategy that enables students organize their learning and make sense of it. In this study, the purpose is determining the teacher perceptions on the level of using the learning strategies by students in social sciences classes. The study is a qualitative study and the Interview Form prepared by the author has been used in it. The content analysis and descriptive analysis techniques have been used in this study for data analyses.

**Keywords:** Learning Strategy, Social sciences, Teacher perception

## TEACHER´S LEARNING AND COLLABORATION USING INNOVATIVE TEAMS: PROFESSIONAL LEARNING COMMUNITY.

*Karla Gamez-pérez, Elizabeth Mena-aviles, Roberto Rosas-rangel*

The 21st century is a challenge for education at all levels and the way that students learn is a challenge which invites teachers to improve learning experience techniques. This research presents the results of the implementation of an innovative educational project conducted at TEC de Monterrey, Campus Leon from August 2014 to May 2015, in which a group teachers from four different subject areas: Basic Sciences, Humanities and Social Sciences, Applied Engineering, Language and Communication, were involved. There were three main objectives for this research project. The first objective was to provide an overview of the terminological framework that describes the teaching collaboration. The second objective was to present the focus and depth of collaboration during the development of the different learning opportunities that were observed. The third objective consisted in listing the benefits observed for students, teachers and the institution. The factors that were initially viewed as an obstacle in coordination ultimately led to the creation of a new methodology for teaching that allows the implementation of new models and improved communication styles between peers. The prior will serve as valuable points of action for class implementation and effective collaboration. This last point is vital for the future since it represents a necessity to build educational organizations that anticipate new trends and generate cutting-edge educational models.

**Keywords:** Collaboration, Methodology, Alignment, Learning

## TEACHERS' OPINION ABOUT EDUCATION INFORMATION NETWORK_EBA

*Ayfer Alper, Fatih Gümüş, Pinar Çindemir*

Education Information Network (EBA), conducted by the General Directorate of Innovation and Educational Technology is an online social learning platform. The purpose of the platform; at school, at home, wherever needed, using information technology is to provide effective learning materials. Many digital learning materials prepared by the Ministry of Education and volunteer companies can be shared and stored at EBA. Teachers and students can also store and share their digital learning materials at EBA as a virtual memory. In this study a variety of teachers' opinions about EBA like "how often it is used" and "which part they were more like" were discussed.

**Keywords:** EBA, Education information network

## TEACHERS' OPINION ON THE USE OF HISTORY OF MATHEMATICS IN MATH CLASSES

*Kani Başibüyük, Ömer Şahin, Yasin Soylu*

Maths is regarded as a science based on in general numbers and symbols. This causes maths to be seen as a hard and scary class. (Yenilmez, 2011; Alakoç, 2003). Different and interesting aspects of maths have to be ascertained and used to make it free from the aforementioned general idea which makes it seem as a hard, scary, boring and lifeless. (Panasuk & Horton, 2012). One of these approaches is the use of the history of maths in maths classes. Within this scope, the aim of this study is to evaluate the viewpoints of teachers on the use of history of maths in maths classes of secondary school and make some inferences about it. Case study method was utilized in the study. In case study method, the object to be searched is dealt depending on time and place and specialized. (Yıldırım & Şimşek, 2011) . Semi-structrured interview technique was used as the tool of collecting data in the study. In the process of developing interview questions, the viewpoints of three instructors about the subject matter were received and in parallel with these viewpoints, the interview form containing 12 questions was constituted. Within the framework of the study, 13 maths teachers from different cities of Turkey were interviwed and interview data was recorded. The data obtained was analyzed with the method of content anaylsis. As a result of the data collected, it was found out that maths teachers do not sufficiently utilize the activities about the history of maths in their classes and the activities about the history of maths in maths coursebooks are narrow scoped. Besides, it was concluded from the statements of the maths teachers that their knowledge on history of maths is not sufficient.

**Keywords:** Mathematics teacher, History of mathematics, Mathematics lesson, Opinion

## TEACHERS' OPINIONS ABOUT SELF-ASSESSMENT AND AUTONOMY IN THE TURKISH EDUCATION CURRICULUM PREPARED BASED ON CONSTRUCTIVIST LEARNING APPROACH

*Gürbüz Çalişkan*

A successful assessment system helps teachers to explore what students know and do not know, and what they understand. It shows students' developmental levels and helps to plan future instruction. It also play an important rol in determining students' struggles, weak areas and knowledge gaps (MEB, 2005). Self-

assessment scales takes place in Turkish teaching curriculum in order to serve for those goals. Students are informed about what they learn, where they have trouble and how they learn through self-assessment practices (Kutlu & others, 2009). According to Kutlu (2005), although the benefits of self-assessments are clear, Turkish teaching curriculum is considered to be the most vicious curriculum in supporting teachers' assessment practices. Thus, the current study aims to explore Turkish teachers' knowledge, attitudes toward and opinions regarding to self-assessment practices. The study used qualitative research method that mostly utilized in social sciences. For data collection, a semi-structured interview protocol was developed based on experts' and teachers' opinions and employed to explore teachers' understanding of self-assessment. The participants of the study were 11 Turkish teachers who teach Turkish courses at 6, 7 and 8 grades and all of them were working at government schools located at Sincan, Ankara. For analysis of the conducted data, content analysis technique was used. The results showed those participants mostly aware about purposes of self-assessment and how it contributes to instruction. However, it is also found that participants do not have education about and do not know how to use and interpret self-assessment to support learning. In addition to this, the participants identified lack of time, crowded classrooms, ineffective implementations, lack of students' objectivity, waste of time, and inappropriateness to students' levels as the reasons for not using self-assessment practices during instruction.

**Keywords:** Turkish intructional program, Self-assessment, Learner autonomy, Turkish language teachers

## TEACHING ENGLISH TO YOUNG LEARNERS: SOME CHALLENGES FACED BY PRE-SERVICE TEACHERS

*Zeynep Çamlibel-acar*

Teaching and learning a foreign language at a young age is becoming more and more common in the world, which creates a great demand for specialized language teachers, since teaching to young learners requires special skill, competence and motivation. Each country and institution is taking precautions in terms of training teachers who will be able to efficiently serve young learners. As part of their training in faculties of education, all pre-service teachers of English in Turkey are provided with one, sometimes two courses on Teaching English to Young Learners, yet do not always have the opportunity to observe real young learner classrooms until their final year or graduation. The general aim of this study was to explore the extent to which pre-service EFL teachers in their third year were influenced by observations in young learner classrooms. The following research questions were asked: (1) to what extent is pre-service teachers' willingness to teach English to young learners influenced by their experiences in schools? and (2) how is their perceived readiness and competence shaped by this experience? Data was collected from 120 junior level students enrolled in the ELT Department of a state university in Turkey. Open-ended questionnaire items administered both at the beginning and at the end of the semester, and reflective essays were the primary sources of data. The quantitative data was analyzed by applying descriptive statistics while the qualitative data was analyzed by using a coding procedure, in order to discover patterns and establish themes. Findings reflect the pre-service teachers' perceived strengths and weaknesses in relation to teaching English to young learners, and how they were affected by the course that they took and the young learner classes that they participated in. Implications and recommendations for teacher-education programs as well as further research will be shared with the audience.

**Keywords:** English language teaching, Young learners, Teacher education, Pre-service teachers

## TEACHING LISTENING

*Khalida Rustamova, Shafagat Mahmudova*

As we know there are a number of words in English that cause problems while speaking, listening, reading and writing. So practicing some speaking and listening –comprehension activities is really very important to improve our speaking, as well as listening skills and avoid some confusing words that really cause problems in understanding/comprehending them. A number of handouts will be presented in this paper.

**Keywords:** Listening, Teaching, Learning

## TEACHING SPEAKING

*Khalida Rustamova, Shafagat Mahmudova*

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**Keywords:** Textbook, Learning, Teaching

## TECHNIQUE « FLOTAC » FOR QUALITATIVE AND QUANTITATIVE COPROMICROSCOPIC DIAGNOSIS OF PARASITES IN BOVINES IN WILAYA DE BATNA

*Benhouda Djahida, Benhouda Afaf, Cringoli Giuseppe, Rinaldi Laura, Hakeme Ahcène*

In this study ,we present protocols for the FLOTAC double technique,wich are promising new multivalent,sensitive,accurate and precise methods for qualitative and quantitative copromicroscopic analysis.These various methods make use of the FLOTAC apparatus,a cylindrial device with two 5-ml flotation chambres,which allows up to 1g of stool to be prepared for microscopic analysis.Compared with currently more widely used diagnostic methods for parasite detection,the FLOTAC technique show higher sensitivity and accuracy.All FLOTAC techniques can be performed on fresh fecal material as well as preserved stool samples,and require approximately 12-15 min of preparation time before microscopic analysis. FLOTAC technique was performed on 174 samples from 9 farms in the wilaya of Batna, we found bovin stool contain the following parasites Eimeria sp, strongyles, Trichuris, paramphistomes, Toxocara.

**Keywords:** Flotac, Parasits, Cattle , Foecal samples, Wilaya of Batna

## TEENAGE VEGETARIANS

*Anna Dittfeld, Katarzyna Gwizdek, Paweł Jagielski, Daria Jorg, Katarzyna Zborowska*

Vegetarianism is a philosophy and a lifestyle aimed to minimize animal exploitation and cruelty towards them. This means not only meatless diet, but also a choosing clothes and cosmetics, the production of which does not require the use of animals and animal products. The vegetarian diet is to exclude any type of meat including poultry, fish and seafood. Vegetarian diet is constantly gaining in popularity, the frequency of its use is estimated on 0,3-7% of the population depending on the country. Resignation from meat consumption can be caused by culture, religion, ethics and health reasons. During the diet people get more information about other aspects of vegetarianism and spread their motivations. The aim of the study was to recognize motivations to apply vegetarian diet by teenagers. The research was conducted among polish-language vegetarians. The research questionnaire was filled with the use of Internet. Result were obtained from 774 teenagers, 871 people in the age of 20-24 and 1509 people in the age over 25 years old. The majority of teenagers became vegetarians because of compassion towards animals (92,4%). Over half of adolescents choosed vegetarianism because of the desire to improve the well-being or sports results, fewer because of ecological reasons, health improvement. For teenagers more important were the desire to improve the well-being, sports results or appearance, less important were health benefits. Statistically significant difference was observed. The most popular source of diet information was Internet, than books, scientific literature and friends. However Internet was significantly more often chosen then in older groups. Teenage vegetarians chose their diet because of compassion towards animals. The most frequent source of knowledge is the Internet.

**Keywords:** Teenage, Vegetarians, Vegetarianism, Lifestyle

## TERRORISM IN THE CHILDREN'S METAPHOR

*Sevgi Coskun Keskin, Ayca Orhan*

According to the Constitution No. 3713 Article 1 of Anti Terrorism Law, terrorism is any kind of act done by one or more persons belonging to an organization with the aim of changing the characteristics of the Republic as specified in the Constitution, its political, legal, social, secular and economic system, damaging the indivisible unity of the State with its territory and nation, endangering the existence of the Turkish State and Republic, weakening or destroying or seizing the authority of the State, eliminating fundamental rights and freedoms, or damaging the internal and external security of the State, public order or general health by means of pressure, force and violence, terror, intimidation, oppression or threat. In our country terrorist acts are carried out by various groups as well as worldwide. Unfortunately people who participate and act or sympathize in such groups most of the time are also citizens of this country. Therefore it is necessary to raise citizens who dont act contrary to the relevant item of above mentioned law and take measures against terrorism in educational sense. In our country life science and social studies are taught as a lesson that improves citizenship skills at primary level. However, these courses are directly not given to terrorism content. Number of research about this issue is rather limited. In this context this work was performed to make a situational determination. So it was examined perspectives of primary school students to terrorist phenomenon through metaphors starting from this purpose. In the study, the phenomenological design that is qualitative research design was used. The maximum variation was made and collected data through the metaphor from a total of 451 students as 251 female students and 180 men who study in 3-8 grades from 6 different cities in the country's eastern and south-east. Metaphors allows to know. Human understand nature and the environment, give a meaning life and experience, make sense through the specific comments from objective reality which appears as meaningless through metaphors. In this way it was determined the meanings which attribute to terror by the students. In the

analysis of data was made descriptive analysis. Data was coded after making discussion by researchers and turned into tema. In the research result was found to give a negative meaning to terror of most students and describe Işid with terrorism in southeast of our country. Negative meaning that was generally given: damaging, evil, aggressive, killing, thing that source is human, war brings, insensitive, act like animals, thing that doesnt resemble anything, terrorists, broken, cruel, a thing that can come and go everywhere / movable , hiding, a thing that spread harmful affects, a thing that is like a herd,selfish, horrible, crime, non-human, insidious, people who torture etc. On the other hand, some students were also positively evaluated to these events. They were given these meanings: a thing that wander like a gazelle on the mountain, alive, people like us, fighters, people who want the peace, a community that people establish, seeking their rights etc. Within the framework of these results it can be said that the issue of terrorism in our country learn in the context of children's lives. However, it can be argued that the phenomenon of terrorism need to be addressed in the educational context through lessons or projects for more conscious individuals.

**Keywords:** Terrorism, Elementary school students, Metaphor, Citizenship education

## TESTOSTERONE AND FATHERHOOD

*Sally De-vitry Smith*

ABSTRACT: This paper reviews how alterations in testosterone levels prime men for fatherhood. Men have the highest testosterone levels when searching for a mate. Once men find a mate testosterone generally decreases allowing oxytocin to foster their parenting abilities. Testosterone inhibits the action of the hormone oxytocin, therefore decreasing testosterone increases oxytocin levels. Testosterone is the steroid hormone responsible for male sexual characteristics and sexual maturation. Testosterone is associated with self-interest, dominance, competitiveness, sexual motivation, mating effort, aggression and risk taking. In contrast oxytocin promotes social interaction, a focus on others, detection of social cues and feelings of generosity, trust, affection, love and empathy. Men without a reduction in testosterone when their partner is pregnant are more likely to have multiple sexual partners. High testosterone may be helpful when competing for a mate but is not ideal for parenthood because aggressive behaviour does not support relationships and the raising of children. Oxytocin is released from the pituitary gland directly into the brain and peripheral circulation where it acts on the oxytocin receptors spread throughout the body. The bonding between father and infant is assisted by contact with their female partner and infant. After playing and interacting with their children men have increased oxytocin and are more affectionate with their partner and children. Children exposed to poor bonding, depressed mothers and neglect or abuse may have epigenetic changes causing increased DNA methylation resulting in reduced expression of oxytocin which may be more significant in males than females. The incidence of autism, a condition associated with low oxytocin levels, is five times higher in males. They are more likely to be perpetrators of domestic violence. Supporting men to stay with their partner at birth and providing a safe environment for infants will assist hormonal changes supporting fatherhood.

**Keywords:** Men, Testosterone, Oxytocin, Fatherhood

## THE 8. GRADE STUDENTS IN MIDDLE SCHOOL IDEAS ABOUT EFFECTIVENESS OF PHYSICAL EDUCATION LESSON

*Fikret Alincak, Mürsel Biçer, Ugur Abakay*

This study was made to determine 8. grade students in middle school ideas about effectiveness of physical education lesson. The interview method which is qualitative research methods was used in this study. To obtaining the data of the study ,open-ended questions were used which designed to evaluate students' ideas and suggestions. These questions are; how do you find the teaching of the lesson, what are the achievements of the lesson, what are the lessons of popular and unpopular aspects, how do you associate the lesson with daily life and school life, how do you associate with other lessons. Working group of the study consisted of 45 middle school dependent Gaziantep Directorate of National Education 8th grade students. Content analysis was performed on data obtained from the ideas of the students. As a result, proceeding from the data obtained, it can be said that physical education lessons are effective and efficient. Students think that physical education lessons can contribute to their physical, mental and social development. But it was concluded that factors such as; lack of lesson hours, lack of teaching materials, lack of environmental conditions and teachers demonstrate due diligence in the lesson, negatively effect the effectiveness of the lesson.

**Keywords:** Middle school, Student, Physical education, Effectiveness

## THE ACTION RESEARCH MODEL BASED ON THE RESEARCH LESSON STUDY: EXAMINING THE CHANGE ON THE STUDENTS' SELF REGULATED LEARNING & PRODUCTS

*Zühal Yilmaz Doğan Yilmaz Dogan, Sertel Altun*

This study aims to investigate the difference between pre-test and post-test self-regulation scores of students after the Research Lesson Study (RLS) and to observe the change in the products that students have developed during this study by centering upon this Research Lesson Study (RLS) . 27 secondary and high school teachers attended the Intel Teach Advanced Online (ITAO) Training under Istanbul Provincial Directorate of National Education. The study group consisted of 392 students in the classes instructed by the 27 secondary and high school teachers that were selectedout of the 106 teachers having attended 3 different training groups between 2013-2014 and 2014-2015 academic years within the scope of Intel Teach Advanced Online (ITAO) Training programme. The research design of the study is the action research model. The study began with the 5-day teacher trainings on 3 different dates between 2013-2014 and 2014-2015 academic years. At the end of the training, the teachers from different disciplines developed instructional designs with working groups of three, and before implementing them in their classes, the teachers used "The Motivated Strategies for Learning Questionnaire" , which was developed by Pintrinch and De Groot (1990) and translated into Turkish by Üredi (2005), in order to discover the self-regulation skills of students. The students having attended at least 3 training processes were involved in the last test of the same questionnaire. The changes in their views on "Self-Regulated Learning Strategies" and "Motivation Tools", which are subscales of The Motivated Strategies for Learning Questionnaire, were tested through the dependent sample t-test. A significant difference was observed in the students' Cognitive Strategy Use and self-regulation, which are the extent of Self-Regulated Learning Strategies, as a result of the applied designs. Regarding Self- Efficacy, intrinsic value and test anxiety scales of motivational tools, an increase in the Self-Efficacy and intrinsic value subscales took place when examining the average scores before and after the training given to their teachers. When the differences in the scores by gender were examined, girls' opinions regarding the use of cognitive strategies were more positive compared to those of boys, while the scores of boys in self-sufficiency were significantly higher than those of girls. When examining the changes of participant students' views on the motivational tools after the first and last tests

applied according to the education level, it was detected that there is a significant difference in their scores related to the Self-Efficacy and intrinsic value subscales for each level of education; however, the changes of the views on test anxiety subscale were not statistically significant for each level of education. While female students' views about Motivational Tools becoming more positive ($p=0.016 < 0.05$), the changes caused in their opinions about the Self-Regulated learning strategies were not statistically significant. Moreover, it was observed that male students' views on the Self-Regulated learning strategies and Motivational Tools became more positive. Furthermore, in this study the products such as videos, posters and digital stories produced by the students and uploaded to the online platform as an outcome of the in-class designs applied by teachers were evaluated by a graded scoring key , taking into account instructional objectives of Intel Teach Advanced Online (ITAO) Training and Research Lesson Study (RLS). When the applied products of students at the beginning and end of the practice were examined, changes in the products were determined in terms of creativity, use of online tools, and interdisciplinary association.

**Keywords:** Research lesson study, Self regulated, Action research

## THE AMOUNTS OF TAXANE FOR ANTICANCER DRUG IN NUTSHELLS IN DIFFERENT REGIONS OF TURKEY

*Sibel Bayil Oğuzkan, Bora Karagül, E.sine Aksoy, Ayşe Uzun, Hasibe Yilmaz, Ceyhan Gören, Mehmet Özaslan, Halil Ibrahim Uğraş*

Günümüzde çoğu kanser türünün hala çaresi bulunamazken pek çok kanser tedavisi de oldukça pahalıdır. Kanser tedavisinde bitkilerin kullanımı gün geçtikçe artmaktadır. Bu sayede pek çok doğal bileşiğin izolasyonu bitkilerden gerçekleşmektedir. Ülkemizde yetişen fındık kabuklarından saflaştırdığımız taksan bileşenlerinin antikanser potansiyelinin olması ve çeşitli kanser türlerinde kullanılan kemoterapi ilaçlarının etken maddesini içermesinden dolayı son derece önemlidir. Bu amaçla Türkiye'nin 5 farklı ilinin 19 farklı yerinden değişik rakımlarda alınan fındığın kahverengi ve yeşil yapraklarındaki numunelerinde taksan bileşenlerini uygun optimizasyon da LC-MS\MS ile analiz ettik. Bulduğumuz sonuçlara göre fındığın kahverengi kabuklarında paklitoksel, sefolamin ve 10-DAB III (10-deasetilbakatin)tespit edilemezken paklitakselin yarı sentetik olarak sentezlenmesinde kullanılan Bakatin III maddesi en yüksek miktarda Düzce \cumayeri ilçesinde 250-500 rakımda toplanan fındık kabuklarında bulunmuştur. Aynı yerlerden aynı rakımlarda toplanan numunelerden fındığın yeşil kabukları analizinde ise en yüksek bakkatinIII Trabzon'nunVakfikebir ilçesinde 0-250 rakımda tespit edilmiştir. Bulduğumuz sonuçlara göre fındık kabuğunun kahverengi yaprağında yeşil yaprağına oranla daha yüksek miktarda taksan bileşenleri tespit edilmiştir.

**Keywords:** Taxan, Paclitoxel, Deacetlybacatin

## THE ANALYSIS OF PERSONAL-INSTITUTIONAL DATA, LEFT IN SOCIAL LIFE AREAS, WITH THE HELP OF FORENSIC METHODS

*Faruk Süleyman Berber, Ecir Uğur Küçüksille*

The digital forensic concept is becoming a concept which we frequently hear in our social life. The digital forensic can be defined such entire process as that the obtaining of recorded datas, on every single information technology equipment to carry digital evidence, and their storage, investigation and preparied as a report to be submitted to the court. In the forensic process, a lot of softwares and hardwares are used. That these hardwares and softwares, used by forensic experts, are in high pay and require professionalism, make it difficult for each computer user to access to these hardwares and softwares. The launch of the free version of the software used in this field in recent years has led to the diversity of structures and work being carried out and to be done in this area. In this study, with free forensic software some examinations were conducted in computing devices used in social life areas without any legal case. The obtained findigs are used to describe a number of critical measures which can be taken by those using computing devices in terms of personal or corporate information security. It was put forward that digital data collection methods could be deadly dangerous, though they are not regarded as risky no matter how often they are encountered in daily life.

**Keywords:** Data security, Forensics, Forensics and security, Information security

## THE ANALYSIS OF RELATIONSHIP BETWEEN STUDENTS' INTERNET ADDICTION AND MISCELLANEOUS VARIABLES

*Harun Cigdem, Tolga Erdogan, Osman Gazi Yildirim*

The recent inevitable development in information technologies has influenced many aspects of our lives. While internet has eased and speeded up the access to information, enhanced and diversified our communication opportunities, and facilitated our lives in areas like commerce and education, by taking the center place in our lives, it has concurrently raised some unfavorable issues like excessive use and preoccupation. Especially youngsters and university students are vulnerable to adverse effects of internet use; the excessive amount of time they spend on internet has led to neglect of other items in their lives, inefficiency and failure at school and work, and lack of satisfaction with life as a result of isolation and loneliness. Thus, internet addiction well deserves further analysis for the harm it causes on younger generations, specifically. The purpose of this study is to analyze the relationship between internet addictions of students and some miscellaneous variables (social life satisfaction, presence or absence of a girlfriend, school satisfaction etc.). The participants comprised 354 post-secondary students enrolling at a vocational college during the spring semester of 2015-2016 Academic Year. "Internet Addiction Test" was utilized for data compilation. One-way ANOVA was used to examine the differences between variables. The results obtained showed that students with unsatisfactory social life felt relaxed with the increase on internet use, those with a girlfriend had higher addiction levels and eventually neglected their families and daily work, and finally students who were not happy at school reported a tendency towards more internet use and more time spent on it.

**Keywords:** Internet addiction, Social life, School satisfaction, Vocational college

## THE APPLICATION OF CAPS (REVERSE INTERPRETATION) IN TURKISH LANGUAGE TEACHING TO FOREIGNERS

*Ahmet Akçay*

Owing to the rapid developments in informatics technology, the ways the people use and express information have changed. The difference is observed clearly in social media which is the environment where individuals communicate and the reflection of internet in daily life. Individuals, having easy access to social networks through tablet computers, laptops desktop computers, use various kinds of ways to express their emotions. One of the methods that individuals use is Caps (reverse interpretation). Caps which is derived from English Word '' capture'' is a term used for obtaining the instant images of a picture or video on the screen and expressing inscribed pictures added on the texts. The caps, made by obtaining screen shots on tv, computer and tablets and adding texts after saving them in the picture and video format, are frequently used in the internet environment. In this study, various applications in teaching Turkish Language have been presented and it has been emphasized that caps -a device of social media- can be used efficiently in teaching Turkish language to foreigners.

**Keywords:** Turkish language teaching to foreigners, Caps, Reverse interpretation, Internet

## THE ASSESSMENT OF WORK ACCIDENTS WITH MULTIVARIATE STATISTICAL ANALYSIS

*Ali Erdem Çerçevik, Süheyla Yerel Kandemir, Yusuf Cengiz Toklu, Mustafa Özgür Yayli*

Occupational health and safety have gained importance with production levels and the increasing development of our country in recent years. In this process, it is taken many measures and the laws, codes are issued for reduce accidents at work. Due to these measures, it reduced the number of work accidents. In this study, it were examined occupational accidents at work for mining (1), food industry (2), textile (3), furniture and equipment manufacturing (4), pharmaceutical and chemical industry (5), machinery manufacturing and repair (6), construction (7) and transport (8) sectors. It was used for multivariate statistical analysis techniques of clustering analysis. Analysis indicated that, more occupational accidents occur textile, mining and construction industry than other sectors.

**Keywords:** Occupational accidents, Multivariate statistical analysis, Cluster analysis, Textile, Mining, Construction

## THE CHALLENGES FACED IN ENHANCING FORMAL AND NON-FORMAL EDUCATION AND TRAINING COURSES (ETCS) AND SOLUTION PROPOSALS BASED ON TEACHERS' VIEWS

*Fatih Bozbayindir, Mevlüt Kara*

In this study, the challenges faced in enhancing formal and non-formal education and training courses, the benefits of these courses for stakeholders and solution proposals of teachers for the challenges faced were examined. The study aimed at revealing the challenges faced in ETCs, the positive contributions of the courses and solution proposals of teachers, and therefore, a case study research design, which is one of qualitative research methods, was used. The study group of the study was comprised of 48 teachers who teach at ETCs in the Nizip district of Gaziantep province in the academic year of 2015-2016. Semi-

structured interview method was used in the present study. The data were analyzed using descriptive and content analyses techniques. A qualitative data analysis program (ATLAS.ti 6) was used in the analysis of the data. According to teachers who teach at ETCs, the most commonly faced challenges are absenteeism, lack of resources for courses, lack of interest in courses due to being provided free of charge and students' not taking these courses seriously. It was found that the positive contributions of ETCs are that these courses support school courses and teachers financially, promote teachers' professional development, and help students who are in need financially. Based on teachers' views, it was suggested that resources must be provided for the ETCs, cooperation must be built with parents, students must be informed about the importance of the courses and a small proportion of money must be taken from the families to hold the ETCs effectively and efficiently.

**Keywords:** Enhancing education and training courses, Teacher

## THE CHOROLOGY OF THE JURINEA KILAEA AZN. (ASTERACEAE) IN TURKEY

*Bekir Dogan*

The genus Jurinea is one of the larger genera within Asteraceae, comprising about 200 species. Jurinea is naturally distributed in central Asia, Turkey, Iran and the Mediterranean region. Jurinea has 23 species within the Mediterranean and Irano-Turanian phytogeographic regions of Turkey. Between 2005 and 2007, as a part of a revisional study of Jurinea kilaea in Turkey, the author carried out extensive field studies and herbaria and collected a large number of specimens. In the field, the specimens' GPS coordinates, habitat and relevant field observations were recorded. The present study rewiews the chorology of the Jurinea kilaea in Turkey based on recent taxonomic revision and available specimen data.

**Keywords:** Asteraceae, Jurinea kilaea, Chorology, Turkey.

## THE CHOROLOGY OF THE KLASEA CERINTHIFOLIA (SM.) GREUTER & WAGENITZ (ASTERACEAE) IN TURKEY

*Bekir Dogan*

The genus Klasea is one of the larger genera within Asteraceae. Klasea is naturally distributed in central Asia, Turkey, Iran, Mediterranean region, China, Himalayas, SE Europe and Russia. Klasea has 15 species within the Mediterranean and Irano-Turanian phytogeographic regions of Turkey. Between 2009 and 2012, as a part of a revisional study of Klasea cerinthifolia in Turkey, the author carried out extensive field studies and herbaria and collected a large number of specimens. In the field, the specimens' GPS coordinates, habitat and relevant field observations were recorded. The present study rewiews the chorology of the Klasea cerinthifolia in Turkey based on recent taxonomic revision and available specimen data.

**Keywords:** Asteraceae, Klasea cerinthifolia, Chorology, Turkey

## THE CLAS NETWORK: A FREE DIGITAL LEARNING PLATFORM FOR CONTENT REPOSITORY, LEARNING MANAGEMENT, NETWORKING, AND COLLABORATION

*James Lipuma, Jeremy Reich, Bruce Bukiet, Lawrence Mayalil*

Modern communications technology empowers educators to reach learners more effectively, efficiently, at a higher volume, and with a greater potential for differentiation. The mixture that results from this combination of innovative teaching and modern technology facilitates digital learning. The New Jersey Institute of Technology's (NJIT) Collaborative for Leadership, Education, and Assessment Research (CLEAR) is currently developing a free digital learning platform to address the growing need for a solution that can house the growing array and sophistication of digital learning objects and materials. This platform, known as the Curriculum Learning and Assessment Studies (CLAS) Network, funded through a grant from the Roche Foundation, is designed both as a repository of vetted educational materials and a networking tool that connects all educational stakeholders. Central to the design of the CLAS Network is the combination of features from content repositories, Learning Management Systems, and networking and collaboration tools. These features include the ability to find or contribute learning objects, instructionally design collections of contributions for a variety of educational applications, and connect with other educational stakeholders in groups, forums, and blogs. Currently, the CLAS Network is completing the testing phase of development. Thus the authors will present its current features and functionality. There is also a suite of additional improvements which are planned and will be discussed. Input from colleagues on the current state of the CLAS Network, as well as suggestions for further improvement, will be solicited.

**Keywords:** Digital learning, Content management, Learning management

## THE CONNECTION BETWEEN THE HUMAN RIGHTS AND RESPONSIBLE SCIENCE TEACHING.

*Sedat Uçar*

Socio-scientific issues are debatable social issues related to science. Some of the science topics related to socio-scientific issues are genetic engineering, climate change, and animal testing for medical purposes, oil drilling in national parks, unhealthy foods, nuclear energy and many others. These issues directly or indirectly effect the human rights such as “Everyone has the right to life” article is being threatened by “the new nuclear power plant construction in your home town”, or “genetically modified organisms-foods”. Basically some scientific discoveries create controversial issues which are causing of human right violations. These socio-scientific issues are covered by the school science curriculum and taught by teachers. So the teachers have important role in clearly explaining the potential positive and negative effect of the issue without avoiding the scientific facts, curriculum and human rights. Therefore, it is important to make science teachers to be aware of the human rights and integrate them to the science courses.

**Keywords:** Science teaching, Human rights

## THE DEGREE OF STUDENTS INVOLVEMENT IN THE SOCIAL STUDIES TEXTBOOK FOR SIX INTERMEDIATE BASIC SCHOOL IN KURDISTAN REGION 'STUDY AND ANALYSIS'

*Sattar Jabbar Haji*

The current study aimed to investigate the degree of students' involvement in the social studies textbook for Six Intermediate Basic School in the Kurdistan Region by it is three units: Geography, History, Citizenship, through the presentation of: educational content, Figures & diagrams, and educational activities. The study also aimed to investigate the difference in the degree of students' involvement in the textbook according to educational units. To achieve this aim the researcher utilized Romy's method to calculate the variables of students' involvement coefficients, and Chi-square test to investigate the differences in involvement degree of the textbook according to educational units. The results showed revealed reduction of students' involvement in educational content in geography, history, Citizenship units, and did not located within the acceptable range adopted by Romy's, it is values were (0.06, 0.10, 0.13) consecutively, the results also showed revealed reduction involvement in figures & diagrams in geography unit it is value reached (0.12), and non- involvement for history and citizenship, and the students' involvement through educational activities the book showed an excellent student except in geography unit with coefficient (0.31). The results also revealed that there were no statistical significant differences in the level (0.05) in each educational content and activities, with statistically significant differences at the significance level (0.05) in the figures & diagrams. The researcher recommended the need for much attention to the students involvement in social studies textbook in educational content, figures & diagrams, and activities in geography unit, moreover, doing further typical analytical studies to be conducted on social studies textbooks in other classrooms in general, in the light of the degree of the student involvement in it.

**Keywords:** Analysis, Involvement, Kurdistan Region, Romy's method, Social studies textbook

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**Keywords:** Analysis, Involvement, Kurdistan Region, Romy's method, Social studies textbook.

## THE EFFECT OF ANCHOR DIAMETER ON ANCHOR TENSILE LOAD

*Özlem Çalişkan, Murat Aras, Turgut Kaya*

When the majority of existing constructions are evaluated in our country, these have seen insufficient performance as seismic safety largely. Post-installed anchors are widely used to connect a new structural element to a load-bearing system in the retrofit works. Chemical anchorages are preferred owing to their high adhesion capacity, easy and practical applicability characteristics. The experimental tests on chemical anchorages are comprised existing concrete or reinforced concrete, adhesive and threaded rod or rebar. In this study, pull-out tests carried out on put inside the concrete blocks in different diameters (12, 16, 20 and 24 mm), embedment depth were equal to 15 times the bar diameter and used 10 different chemical adhesives. As a result of the tests conducted, load-displacement curves, axial load capacities and collapse modes were obtained. The results of the test were compared to anticipating the capacity and design strength values by ACI 318 (Building Code Requirements for Reinforced Concrete). Minimum and maximum values in term of axial tensile capacity obtained 24 mm and 12 mm rods respectively. Besides, same diameter rods were investigated to notice effect of chemical adhesive types on ultimate tension load.

**Keywords:** Chemically bonded anchorages, adhesive, tensile capacity, pull-out, ACI 318.

## THE EFFECT OF COOPERATIVE LEARNING MODEL ON PRESCHOOL CHILDREN'S PROBLEM SOLVING SKILLS

*Nilüfer Okur Akçay, Bilal Macun*

The aim of this research is to examine the effect of cooperative learning model on pre-school children's problem-solving skills in pre-school science education. The sample of the study consisted of children in the 5-6 age group. Research was carried out with 38 (experimental group:20, control group:18) children in preschool education. Cooperative learning model was applied in the experimental group and also the control group of education was continued the daily flow. Research is pretest-posttest control group that in the form of experimental design. In the study, in order to determine the children's problem-solving skills the "Problem Solving Scale in Science Education" prepared by Ünal and Aral (2014) was used. Research is applied during 7 week formed cooperative learning groups and science subjects in the experimental group every week on the activities of the group and work on these issues has been achieved. Especially the children can use their science process skills of selected science subjects, independent thinking, decision making and problem solving processes were targeted to provide allow them to develop. According to the survey of children in the control group and the experimental group which had been applied cooperative learning model Problem Solving Scale in Science Education scores was observed statistically significant difference between the mean and it was determined that this difference was the experimental group's favor.

**Keywords:** Cooperative learning, Science, Problem solving skills, Preschool

## THE EFFECT OF DIFFERENT FORMS OF CAPITAL ON ENTREPRENEURSHIP IN EDUCATION SECTOR

*Bakiye Yalinç*

Entrepreneurship in education sector became a very popular area and it reflects increased national and international interest by individuals, university professors, students, and government officials. This research examines empirically the effect of different forms of capital on entrepreneurship in education sector. To this aim, methodological approach of dynamic panel regression analysis will be used for the period of 1990-2015. In this research, a unique data set for universities will be utilized to examine the relative importance of three forms of capital; human, social and cultural capital in pursuing entrepreneurial educational systems.The model developed considers curriculum's of universities, number of new course offerings, human capital, cultural capital, social capital. The significance of this study is that; it analyzes the effect of cultural, social and human capital on new education tool offerings and focuses on universities. The findings of the study demonstrates the importance of capital for creation of new educational tools. Although forms of capital is largely examined in the literature, education industry, particularly university sector have been covered by fewer studies, and no study examined the effect of different forms of capital on entrepreneurship undertaking dynamic panel regression and likelihood-ratio testing method. The research findings should help accreditation councils, policy makers,related university management, head of departments in universities to make optimal capital decisions to boost entrepreneurship in education sector.

**Keywords:** Social capital, Cultural capital, Human capital, Educational tools

## THE EFFECT OF IMMEDIATE FEEDBACK DURING TESTING ON STUDENT PERFORMANCE

*Ahmet Ozcan, Mustafa Erol, Hilmi Süngü*

All instructional activities aim to ensure quality learning. For this purpose, many activities such as engaging, exploring, giving clues and reinforcers are performed, and one of them is giving feedback to the learners about the quality and accuracy of their learning. There are various types of feedback such as corrective, diagnostic, explanatory, and immediate. Immediate feedback has a substantial effect on reinforcing learning. It is often given by the teacher verbally during the course. However, giving immediate feedback during testing is rather rare. In this context, IF-AT (Immediate Feedback Assessment Technique) which was developed by Epstein Educational Enterprises was applied in this study. IF-AT is a testing technique which gives immediate feedback during examinations and allows students to answer until finding the correct choice. The aim of this study is to investigate the effect of immediate feedback during testing on academic achievement and retention, and reveal the thoughts of students about IF-AT technique. Pre-test post-test control group experimental design has been used. Students from the department of early childhood education, who take English II course, comprise the experimental and control groups. Achievement test and interview form have been used as data collection tools. Achievement test has been applied to experimental and control groups as pre-test, post-test and retention test. Interviews have been made with the students in experimental group to identify their thoughts about receiving feedback during testing. IF-AT type tests experimental group and traditional multiple choice tests for control group have been applied during experiential process. This process took a semester and seven unit tests were applied after each unit. Data have been analysed with t-test and descriptive analysis techniques. The results of the study show that IF-AT technique has a significant effect on academic achievement and retention. Moreover, students have positive thoughts about immediate feedback during testing.

**Keywords:** Immediate feedback, IF-AT, Testing, Academic achievement, Retention

## THE EFFECT OF LEARNING-THROUGH-EXAM METHOD ON ACADEMIC SUCCESS OF STUDENT MATHEMATICS TEACHERS IN INSTRUCTIONAL PRINCIPLES AND METHODS COURSE

*Ismail Şan*

In this study, the effects of learning-through-exam method on academic success were investigated among a sample of sophomores in Inonu University, in Malatya. The work group of this study was constituted with the sophomores who attended to Instructional Principles and Methods course that was conducted by researcher. The work group consists of 79 student mathematics teachers. Posttest-only control-group design was held at this experimental research. Over the school year, experimental group took courses in accordance with learning through exam method, whereas control group took traditional courses. Experimental group students, especially women, showed higher academic success according to control group. The results indicate that learning-through exam method can positively affect sophomores' academic success in Instructional Principles and Methods course.

**Keywords:** Learning-through-exam method, Instructional principles and methods, Student mathematics teachers

## THE EFFECT OF PLATELET-RICH PLASMA ON THE RECOVERY OF TISSUES IN SHEEP

*Daikh Badis, Benoune Omar*

The use of autologous platelet concentrates , following technology to prepare fibrin sealants , have been widely developedfrom the years 1990 with the aim of stimulating the cellular and molecular level the different phases of repair and tissue regeneration via platelets and growth factors they release at the lesion site .Their autologous character confirmed excellent biocompatibility and biodegradability, while avoiding the risk of transmission of pathogens. Our study devoted initially to present the various protocols used for obtaining a PRP and choose the best reliable technique for easy separation of platelets. Ours being a double centrifugation in which the first speed is 2000 for 05 minutes and the second speed is 3000 for 10 minutes. A clinical and histological part confirm the hypothesis and the value of use of PRP as an adjuvant ensuring perfect healing of skin tissue in sheep.

**Keywords:** PRP, Healing, Skin, Sheep

## THE EFFECT OF PREPROCESSING ON MEDICAL RECORDS

*Bekir Parlak*

Text classification plays an important role in the organization of the continuing growth of digital documents. Preprocessing that is part of the text classification improves classification accuracy of a text classifier. Feature selection, an efficient preprocessing technique also improves classification accuracy. In our study, aims to examine the effect of preprocessing in terms of various aspects such as classification

accuracy and dimension reduction. So, some possible combinations of generally used preprocessing tasks are evaluated. In this way, we studied on benchmark dataset with two different feature selection method and different version preprocessing such as stemming, stopword removal and various feature dimension. In conclusion, we show that applying to different classifier to vector space.

**Keywords:** Text classification, Preprocessing, Feature selection, Classifiation accuracy, Dimension reduction

## THE EFFECT OF QUANTUM MEMORY TECHNIQUES IN 7TH GRADES SOCIAL STUDIES CLASSES ON STUDENTS' KEEPING CONCEPTS AND PHENOMENA IN THEIR LONG-TERM MEMORIES

*Özkan Akman, Çiğdem Kiliç Çarşanbali*

The purpose of this study is examining the effects of quantum memory techniques and traditional teaching methods in 7th Grade Social Studies students on keeping the concepts and phenomena in their long-term memories. The quasi-experimental pretest-posttest study design with a control group has been used in the study. The sampling of the study consists of the sixty 7th graders (the Study Group: 30 students -the Control Group: 30 students) studying at Cemil Gokce and Basaran Secondary Schools in Beytussebab county of the city of Sırnak. The pretest-posttest success test was applied in the study as the data collection tool. The analyses of the study was made by using the SPSS 18.00 Package Program, the Independent t-test and the One-Way Variance (ANOVA) Analysis Programs. Students, who are in their teenage years, experience difficulties in making sense of the concepts, which are the one of the important bases of the Social Studies classes. Students also have difficulties in remembering them in the long run. This situation is especially observable in the misconceptions that are leaned previously, and in the concepts and phenomena that are seen for the first time by students. In this context, the use of association, animation, interrelations, abbreviations, and 'memory nails' become important. At the end of the study, it was observed that there are significant differences in the tests applied to the Study and Control Groups. It has been concluded that the concepts and phenomena that are acquired with quantum memory techniques are remembers despite the long time intervals.

**Keywords:** Quantum memory technique, Social studies, Teaching methods

## THE EFFECT OF SOCIO-ECONOMIC CHARACTERISTICS ON MIDDLE SCHOOL STUDENTS' IMAGINATIONS OF TECHNOLOGICAL INVENTION

*Ayhan Çinici, Kevser Herdem*

In terms of the objectives of contemporary science education, understanding of the multi-dimensional relations and interaction between science and technology are quite important. In this context, in the revised science curriculum of primary and middle school phases in Turkey, it was aimed to upgrade students' perception of science and technology to a high standard with more imagination and innovative thinking. Despite an extensive literature about the effects of many demographic variables on cognitive or affective performance for science, there have been few studies investigating the effect of socio-economic characteristics on scientific or technological imaginations of pupils. So, in this study, it was aimed to examine the effect of socio-economic characteristics of 5th grade students on their technological imaginations. With this aim, a cross-case study approach was adopted, because of its convenience for gaining insight and understanding about the issue. The participants of the study consists of 80 students

from three middle schools in Bismil district of Diyarbakir province which is located in the southeast of Turkey. When choosing the schools, socio-economic characteristics of the students were taken into consideration. To this and, a private school and two public schools were selected by purposive sampling technique. In the data collection process, the students were asked to make believe of themselves as an inventor who invents technological devices and to design a technological product that they want to have. Also, it was asked them to write a reasoned explanation regarding why they design a technological product such that. Student expression and drawings obtained is subjected to inductive content analysis, and codes, categories and themes are established. The findings of study showed that the socio-economic level of the students had an impact on their imagination of technological invention. Possible explanations for the findings are discussed, particularly in relation to the debate regarding performance and socio-economic equity.

**Keywords:** Invention, Science and technology education, Socio-economic characteristics, Technological design

## THE EFFECT OF THE PITCH-TO-DIAMETER ON PRESSURE DROP ACROSS RESTRICTIONS OF A TUBE SUPPORT PLATE USED IN HEAT EXCHANGERS

*Nadim Zakhia*

This experimental investigation presents experimental results for the pressure drop across an annular geometry restriction in a Tube Support Plate (TSP). These restrictions are typical in pressurized water reactor (PWR) steam generators. Pressure drops were experimentally measured for single and two-phase air-water mixture. The purpose of this investigation is to predict the effect of the pitch-to-diameter ratio by comparing the pressure losses of a vertical upward flow of a single and tow-phase flow for two different geometries, annular and trefoil, with the same hydraulic diameters of 0.760 mm. The tests were performed at atmospheric conditions. These support plates are spaced along the tube bundles of the steam generator to maintain the stability and the proper configuration among the tubes. The secondary flow of the shell side must pass through the small annular gaps which increases the shell side pressure drop. Therefore, predicting the behavior of the pressure drop and its magnitude along the shell side is an important consideration for heat exchanger designers such as pumping power and heat transfer. From experimental pressure drop data, the loss coefficients were determined and empirical correlations were developed. A conclusive comparison indicates that the annular geometry yields to a lower pressure drop than the trefoil geometry. Thus, the annular geometry would require less pumping power than the trefoil geometry for the same hydraulic diameter. Moreover, it is concluded that the hydraulic diameter as well as the pitch-to-diameter ratio are not appropriate geometric modelling parameters.

**Keywords:** Pressure drop, Heat Exchangers, Pitch-to-diameter ratio, Hydraulic diameter

## THE EFFECTIVENESS OF EDUCATIONAL DRAMA METHOD IN TEACHING OF OBJECT GRAPHIC IN PRIMARY SCHOOL SECOND GRADE

*Esra Ay Karaçuha, Ahmet Çebi*

Teaching the reading of graphics is important problem which we face in all educational stages and also which is being waited for being solved. It can be converted that in second grade of primary school general

literate abilities can be developed by the way of the comment on object graphic and the activitiy of abstraction.The aim of this study based on experimental-controllable groups, before test-after test designed to put forth either the object graphic in second grade of primary school which is created and interpret for demonstration method based on cartoon subjects or educational drama methods based on cartoon subjects are effective for learning.

**Keywords:** The student of second grade in primary school, Object graphics, Demonstration method, Educational drama method

## THE EFFECTIVITY OF THE POSTERS ON TEACHING TURKISH TO FOREIGNERS AS A VISUAL STIMULUS

*Ahmet Akçay, Emrullah Ay*

The conducted studies show that as the number of the active sensing organs increase during teaching-learning, the permanence of learning will increase in the same rate. The role of visual materials in enriching the teaching-learning environment is important. Posters, one of these materials, provides various means both to the teachers and to the student in terms of visual aid. Posters should be used especially in teaching-learning environments where a new language is being taught. Subjects such as Turkish alphabet, food-beverages, seasons, occupations and numbers are taught to the A1 level individuals who have just started to learn Turkish. After these subjects which are taught by the teacher, the students can be supported with the posters on the walls of classroom or in the corridors of the institution to help repeat the subjects, remember on-demand and increase the permanence of learning. Through the posters which are to be prepared carefully, new vocabulary can be taught to those who are new to Turkish or the vocabulary the students have just learnt can be transmitted to the mind in a permanent way. The purpose of this study is to introduce the poster which can be used in teaching Turkish to foreigners as visual stimulus and making suggestions about the effective use of these posters in teaching-learning environments.

**Keywords:** Teaching Turkish to foreigners, Visual stimulus, Poster

## THE EFFECTS OF DIAGONAL SPRING ABSORBER IN MULTI STOREY BUILDINGS

*Osman Kirtel, Erkan Çelebi*

With developing technology in the recent years, the seismic damping systems has begun to be widely used in the important buildings to increase the dynamic performance of the superstructures against earthquake effects. For the external applied force to the structure as instant and applied counteracting force accordingly, the damping systems (Active damping system) and for forces which is taking by structure the absorbing systems (Passive damping systems) are used practically. Because of low cost and easy calculation the Passive insulation systems are more common. In this study the dynamic behavior of multi-story steel structure under the effect of earthquake is experimentally investigated by using of shaking table. Single span and two stores structure model is used in the analysis. In the each floor of building, by placing diagonal springs in one direction the dynamic behavior change of the superstructure is investigated. In the shaking table analysis, by using of Kocaeli 1999 earthquake Sakarya acceleration record the forced vibration movement change of superstructure is recorded by accelerometers. In this study by placing three

numbers of uniaxial accelerometers on the shaking table ,first and second floor the acceleration-time relationships at three different points was obtained by comparison. While analyzing the obtained data of vibration amplitude oscillation of the superstructure, in the added structure diagonal spring model it was seen more rapid decrease in the comparison drawn graphics.

**Keywords:** Dynamic behavior, Shaking table, Seismic damping

## THE EFFECTS OF MENTORING TO CHEMISTRY TEACHERS' PROFESSIONAL DEVELOPMENT

*Ayşegül Sağlam Arslan, Suat Ünal, Faik Özgür Karataş, Ayşegül Aslan*

Research has emphasized that the mentoring have positive effects on teachers' academic success, personal and professional developments, teaching behaviors and motivation. It has also been reported that mentoring helps teachers perform their roles successfully in their classes and be satisfied with their job. Similarly, many studies indicated that teachers' self-assessment plays an important role to ensure the continuity of their professional development. Thus, after the chemistry teachers' problems in the implementation of curriculum were identified, they were mentored to solve these problems. Thus, the effects of the mentoring on teacher qualifications and their teaching behaviors were determined by means of their self-assessments for certain period of time. Four chemistry teachers, teaching in Anatolian high schools in the city center of two towns located north eastern part of Turkey, participated in this study. A self-assessment form (SAF) which is compatible with the requirements of the Chemistry curriculum was developed by the researchers and their final form was made regarding the opinions of three science educators. SAF was filled out by the teachers, who were participated in the mentoring activities, both before and after each mentoring session for eight weeks. The data obtained from self-assessment form was analyzed for each participant as a particular case. It was determined that although the teachers assessed themselves as "insufficient" in terms of some items in SAF (challenging the pre-knowledge and giving examples in daily life etc.) before the mentoring sessions, they have assessed themselves as "sufficient" for the same items after they completed each mentoring session. This change could be regarded as an indicator that teachers have given up some of the negative teaching behaviors and improved their deficiencies as results of the mentoring sessions. In addition, while some of the participant teachers hold overly favorable views as "sufficient" or "excellent" about their professional competencies in some items (using performance based measurement and evaluation, using student-centered teaching approaches) at the beginning, it was found that they assessed themselves for the same items in a more realistic way after mentoring sessions. It is considered to be a hint that mentoring might contribute to the participant teachers' endeavors to know themselves well. Based on these results, it is believed that the inclusion of mentoring to teachers' pre-service and in-service training would contribute to improving the quality of teachers. Considering that Ministry of National Education in Turkey has started a new implementation in which a teacher candidate (mentee) is mentored by an experienced teacher (mentor) for six months before she/he starts teaching, training the experienced teachers in a such mentoring process that science educators supports them constantly is believed to bring about a chain reaction to improve teacher competencies at all levels.

**Keywords:** Mentoring, Chemistry education

## THE EFFECTS OF SOURCES OF MATHEMATICS SELF-EFFICACY ON MATH TASK VALUE: THE MEDIATING ROLE OF CLASSROOM MANAGEMENT PROFILES

*Fatih Bozbayindir, Eyup Yurt*

In this study, it was aimed at investigating the mediating role of classroom management profiles in terms of the effects of sources of mathematics self-efficacy on math task value. This study is designed as correlational research, and a total of 248 7th grade middle school students participated in the study. The sample of the study was comprised of 54% female (n=133) and 46% male (n=115) students. The data were gathered using sources of mathematics self-efficacy scale (Yurt and Sünbül, 2014), self and task value in mathematics scale (Yurt and Akyol, 2015) and classroom management profiles scale, which was developed by Ekici (2004) and adapted for middle school students by the researchers, were used. The following steps were followed in line with the purpose of the study: i) correlation values between all of the variables were calculated, ii) the effects of sources of mathematics self-efficacy on classroom management profiles were examined (r=.39, p

**Keywords:** Sources of self-efficacy, Task value, Classroom management profile, Mathematics course

## THE EVALUATION OF PHYSICAL EDUCATION AND SPORTS TEACHER'S IDEAS ON REGARDING THE USE OF TOOLS IN THE LESSONS

*Fikret Alincak, Uğur Abakay*

The impact of use of tools at lessons in teaching and learning process is known to be more . Therefore it's neccesary for effective learning that using various tools at teaching of physical education and sport. This study was made to determine the physical education and sports teachers evaluation on using tools at lessons. The interview method which is qualitative research methods was used in this study. The data which obtained from 40 teachers who working schools in Gaziantep province which in center and districts depending on the ministry of education, was analyzed using content analysis method. As a result, the majority of teachers encounter to some problems conserning acces to tools which are used in lessons and so that it concluded that the inefficient lessons of commited has been reached. Also in order to be more effective and efficient of physical education and sports lessons, teachers included in the study reported these proposals such as; it should be supported schools about the supply of study materials, physical and environmental conditions should be improved, it should be given required importance to physical education and sports lessons, schoolboard and ministry should assist schools about supply tools in order to be more effective and efficient of physical education and sports lessons, students should be supported about clothes which used in lessons and it should again activated sports club dues at schools.

**Keywords:** Tools, Teacher, Physical education, sport

## THE EVALUATION OF THE IMPACT PERFORMANCE OF TWINNING INDUCED PLASTICITY (TWIP) STEELS

*Yuksel Akinay, Fatih Hayat, Sadettin Şahin*

The influence of annealing and different impact test temperature on impact performance of twinning induced plasticity (TWIP) steels were investigated in this study. TWIP steels were fabricated, cold rolled and were annealed at 800°C for 120 and 240 minute and then air-cooled. The mechanical behavior of TWIP steel was studied by tensile and Charpy V-notch impact tests carried out at -25oC, -50oC and room temperature. The results showed that, there are direct proportion between tensile strength of specimens and impact toughness. However, the highest toughness was obtained at annealed specimens. This observation suggests that, the recrystallization and formation of twins promote ductility. The SEM image of fracture surfaces results showed that, annealed specimen exhibited a lot of small dimples, a characteristic of ductile fracture but the brittle fracture patterns were obtained from specimen as rolled.

**Keywords:** Charpy impact, twinning, Heat treatment, Microstructure

## THE EXAMINATION OF THE RELATIONSHIP BETWEEN SOCIAL APPEARANCE ANXIETY AND SELF-ESTEEM OF PRESERVICE TEACHERS

*Kayhan Bozgün*

Social appearance concerns are known as a type of social anxiety and defined as tension or anxiety which shows up on a person when this person's physical appearance is evaluated by other people. The evaluation forms of a person by others in the environment which he/she enters everyday affects their self respect in a positive or negative way. While, the person sees himself/herself worthless and low self respect shows up when it is negative, when it is positive the person shows healthy behaviours and high self respect shows up. This study is done in purpose to determine whether there is a relationship between social appearance anxiety and self-esteem in preservice teachers who study at university. In this study, relational (correlation) screening method of quantitative research has been selected as a method. Research sample is constituded by 462 preservice teachers who keep studying in different departments such as science teaching, primary school teaching, Turkish teaching and social science teaching on the 1st, 2nd, 3rd and 4th grades at the Faculty of Education in Amasya University. To collect these data, "Social Appearance Anxiety Scale" which is developed by Hart (2008) and others adapted to Turkish by Doğan (2010) and "Rosenberg Self-Esteem Scale" developed by Rosenberg and adapted by Çuhadaroğlu are used as data collection tools. With the SPSS package, correlation analysis, T tests and anova techniques are used for data analysis. One negative direction relationship is found between social view concerns and self respect of preservice teachers and that shows us while one of them is increasing the other is decreasing. And the most important result of this study is the lack of self respect in preservice teachers is one of the factors for the formation of social view concerns.

**Keywords:** Preservice teachers, Self-esteem, Social apparance anxiety

## THE HISTORICAL INFLUENCE OF CULTURE ON THE DEVELOPMENT OF VARIOUS EPISTEMOLOGICAL BELIEFS: AN INTERNATIONAL EXAMPLE, TURKEY

*Kadir Demir, Tugce Gul*

The purpose of this work is to present a working model that depicts the interactive relationships between the development of Epistemological Beliefs (EBs) of teachers and students, cultures, and learning environments (LEs). The working model recognizes how EBs can be influenced by school level and external LEs and cultures as well. Of particular interest is literature that documents cross-cultural differences in teachers' and students' EBs with a particular focus on EBs of teachers. The literature in EBs in science classrooms is a primary focus and cross-cultural studies of other teaching and learning contexts are also included. An international example, Turkey, is used to highlight the historical influence of culture on the development of various EBs.

**Keywords:** Epistemology, Culture, Learning environments

## THE IMPACT OF THE EDULAB MODEL ON THE LEARNING PROCESS: STUDENTS AND TEACHERS' PERCEPTIONS

*Ana Oliveira, Lúcia Pombo*

Currently, in ten Portuguese schools grouping, it has been implemented and tested a new model of technologies' integration in education: the EduLab model. This model seeks to promote the development of digital literacy, knowledge and competencies of teachers and students involved in it by creating classrooms equipped by educational and technological resources. In addition, the EduLab model predicts teachers' training and pedagogical accompaniment, seeking to encourage the adoption of innovative teaching practices, using the technologies that will lead to an improvement of the educational process. This study intends to assess the impact of the EduLab model on improving students' learning ability in the School Grouping of Gafanha da Nazaré (Aveiro, Portugal), one of the groups of schools that integrates this pilot project. To this end, it was used the survey technique and were applied two questionnaires: one for students of the second, fifth and eighth grades and another for teachers involved in the project. The majority of students in the second and fifth grades refers that they enjoy using these technologies having a positive impact on their learning. The students of the eighth grade are not so confident and, mostly, do not recognize that technologies provide them a better learning. Teachers involved believe that technology has a positive impact on students' interest, motivation and participation. They also note that technologies support the development of disciplinary skills, promote the development of specific skills and an autonomous and student-centered learning.

**Keywords:** EduLab model, Technologies, Learning, Students and teachers' perceptions

## THE IMPACTS OF WEATHER TO SCOTS PINE WOOD IMPREGNATED WITH NATURAL AND SYNTHETIC IMPREGNATE MATERIALS

*Mehmet Yaşar, Mustafa Altinok, M.said Fidan, Ş.şadiye Yaşar*

Used long-term of wood has been working on importance rinse in each period. Impregnating with different methods in order to fight against factors particularly natural conditions, fungi and insects etc. with different protective materials were protected to wood materials. Mostly meant to be an alternative to impregnation made with natural impregnate materials that are less harmful to human health and the environment against the use of chemicals is of more importance today. In this study, scotch pine (Pinus sylvestris L) wood materials is targeted to test of the physical and mechanical properties in the result of impregnating with pine tannin of natural impregnate material and immersol aqua using synthetic impregnating agent. Impregnated materials have tried to put forward to more advantageous of impregnate materials examining of the physical and mechanical properties wait in the clear weather conditions with a year of time. Impregnation method is applied as dipping method. In this study; air dry density, retention amount, bending strength, modulus of elasticity, compressive strength parallel to the fibers, bonding strength in direction parallel to the fibers and screw holding strength were determined. This study concluded that values of strength retaining screw and parallel shear strength to fibers in samples impregnated with pine tannins were determined higher than immersol aqua. And compressive strength parallel to grain, bending strength, air drying and oven dry density values were determined as the lower. As a result, scotch pine wood impregnated with pine tannin is determined that can be compared level with samples impregnated with immersol aqua.

**Keywords:** Scotch pine, Pine tannin, Immersol aqua, Wood, Impregnated

## THE IMPORTANCE OF ENVIRONMENTAL EDUCATION ON ATTITUDES AND BEHAVIORS FOR HOUSEHOLD WASTE MANAGEMENT IN BLACK SEA REGION, TURKEY

*Nurdan Gamze Turan, Yüksel Ardali, Nükhet Konuk*

Four waste management concepts as waste reduction, reuse, recycling and best available technology were evaluated with the use of the surveys including of these subjects. It was assumed that environmental values, situational and social characteristics, and psychological factors all play a significant role in the prediction of waste management behavior, within the context of a core intention-behavior relationship. This study was tested in a questionnaire of 10 cities in the Black Sea Region, Turkey. It was found that the predictors of reduction, reuse, recycling and best available technology behavior differed significantly, with reduction and reuse being predicted by underlying environmental values, knowledge, and concern-based variables. It was determined that the best practices below-average interest in techniques. Recycling behavior was, in contrast, characterized as highly normative behavior.

**Keywords:** Waste management, Black sea region, Turkey, Environmental education

## THE IMPORTANCE OF URBANIZATION IN EDUCATION

*Nükhet Konuk, Nurdan Gamze Turan, Yüksel Ardali*

Urbanization is defined as the increasing share of population living in urban areas. Urban areas are more suitable for locating administrative facilities and functions. Urbanization is the most phenomenon of the changes in the world. While 2% of the world's population lived in urban areas in 1980s, 15 of the world's polulation lived in urban areas in 1900s. In 1950, approximately 30% of people lived in urban areas. Over the last 30 years many urban areas have experienced dramatic growth as a result of rapid urbanization. In 2014, 54% of the world's population lived in urban areas. It is expected to increase to 72% by 2050. The rapid growth is not sustainable from the point of economic, environmental and educational perspective. As more and more rural migrants move into urban areas, their education and implications for education inequality between rural and urban populations become important isuues. Urban areas were viewed by many as economically dynamic, attracting and employing migrant populations from small towns, rural areas, and abroad during the first half of the twentieth century. However, urban areas cause the problems for the large numbers of poor and minorities who live in cities during the second half of the twentieth century. Such negative associations with urban areas profoundly affect education and shape the nature of urban schooling. The aim of the study is to investigate the changing of urbanization activities and compare education performance of rural and urban areas. Education performance in urban areas is generally higher than that of rural areas.

**Keywords:** Urbanization, Urban areas, Rural areas, Education

## THE IMPORTANCE OF USING ARCHIVE IN SOCIAL STUDIES EDUCATION

*Ozkan Akman*

To establish strong relationships between past and the future of people, to carry their experiences in almost all areas of society such as political, economic and cultural areas into future have a very important place in the history of societies and nations. Archives constitute an important issue for all countries in the world. The purpose of this study is to allow social studies teachers, specialists, educators and students who try to learn this lesson to understand how to use archive in the area of social studies. Archive is defined as services provided for institutions, natural and legal persons, communication made by them and documentation prepared as a result of operations, institution dealing with related documentation, the place where these are kept. This study was conducted by document analysis technique which is one of the qualitative research methods. Document management, librarianship, museology, history, management science, computer and communication technology issues were examined under major topics in order to collect data related to record keeping. Record keeping finds itself a place in almost all areas where documents exist. Because information and documents inhere in it. According to the results of the data emerging from this research; it was understood that quality can't be provided and progress can't be made without going to sources and without returning to the essence.

**Keywords:** Social studies education, Archive, Librarianship, Museology, Historical resources

## THE INFLUENCE OF ANNEALING TEMPERATURE AND ALLOYING ELEMENTS ON FORMATION OF CARBIDES AND TWINING

*Yuksel Akinay, Fatih Hayat*

The influence of annealing temperature and alloying elements on formation of carbide precipitations and twinning was investigated. TWIP 1 (0,6C, 24Mn) and TWIP 2 (0,6C, 24Mn, 1Ni) steels were fabricated, and were annealed for 150 minutes at 700°C, 800°C and 900°C and then air-cooled. The microstructures and mechanical properties of annealed specimens were analyzed with a focus on the role of possible formation of M3C precipitates and twinning on TWIP steel. The carbide precipitations were observed with wide slip bands in the microstructure of TWIP 1 and TWIP 2 annealed at 700°C. But the microstructure of TWIP 1 annealed at 800oC and 900oC are fully austenite and some grains are including annealing twins. Furthermore it was found that with the Ni element was delayed the formation of twinning at 800oC and 900oC for TWIP 2.

**Keywords:** High Manganese, Twining, Stacking fault energy, Carbide precipitation, Slip band

## THE INFLUENCE OF TEMPERATURE ON TENSILE STRENGTHS OF CHEMICALLY BONDED ANCHORS

*Özlem Çalişkan, Turgut Kaya, Murat Aras*

In retrofitting applications, post-installed anchors are widely used to connect a new structural element to a load-bearing system. Chemical anchorages are preferred owing to their high adhesion capacity, easy and practical applicability characteristics. The experimental tests on chemical anchorages are comprised of existing concrete or reinforced concrete, adhesive and threaded rod or rebar. In this study, the effect of temperature on anchor tensile strength is investigated. For this reason, 150x150x150 mm cube specimens were produced using concrete with C25 class which were drilled to embed bars by aid of epoxy. The bars with 20 mm diameter were embedded to holes with 24 diameter and 100 mm depth. The specimens were kept in an oven for 60 minutes where the temperature was increased 3 °C every minute to 50-100-150 and 200 °C temperature. The anchor hole was drilled 24 mm in the concrete to embedded depth 100 mm and steel bars having 20 mm diameter. Then, there specimens were subjected to pull-out test both when they were hot and their temperature was decreased to the room temperature. The results were compared against reference specimens which were kept in the laboratory temperature (20 ±2 °C). Decreasing adherence strength due to increasing temperature was observed.

**Keywords:** Chemical anchorage, Tensile strength, Effect of temperature, Chemical adhesive

## THE INTERNET OF THINGS FOR SMART GRIDS: POTENTIAL APPLICATIONS, OPEN RESEARCH ISSUES, AND CHALLENGES

*S. Mehtap Izmirli Ayan, Bahtiyar Dursun, Gürkan Tuna*

The Internet of Things (IoT) can be described as the network of things embedded with electronics, software, sensors, and network connectivity. The IoT allows objects to be sensed and controlled remotely across existing network infrastructure, thereby create opportunities for better integration between the

physical world and computer-based systems. When augmented with sensors and actuators, the IoT becomes an instance of the more general class of cyber-physical systems since each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing Internet infrastructure. Since the IoT results in improved efficiency, accuracy and economic benefits, it is estimated that the IoT will consist of billions of objects in a few years. Smart grid transformation is changing the way electric utilities operate. With the smart grid technology, the utilities are equipped to improve operations, deliver power more efficiently, restore power faster, reduce management costs, and become environmentally friendly. Moreover, the utilities can immediately identify outages and allowing for improved efficiency to manage responses. In this paper, we review IoT technology and its potential applications in the smart grid. In addition, we also investigate open research issues and research challenges in the use of IoT technology in the smart grid solutions.

**Keywords:** Smart grid, the Internet of things, Potential applications, Challenges, Open research issues

## THE INVESTIGATION OF THE RELATIONS BETWEEN STUDENTS' ATTITUDES TOWARD THE NATURE OF TECHNOLOGY AND PROBLEMATIC INTERNET USAGE

*Aziz Teke, Ismail Şahin, Özlem Sadi*

The purpose of the present study was to explore the relevance between the sub-dimensions of the instrument for assessing students' concepts of the nature of technology scale developed by Pey-Yan Liou and the sub-dimensions of problematic internet usage scale developed by Ceyhan, Ceyhan and Gürcan. The instrument for assessing students' concepts of the nature of technology scale consists of six sub-dimensions named technology as artifacts, technology as an innovative change, the current role of technology in society, technology as a double-edged sword, history of technology, and technology as a science-based form. The problematic internet usage scale consists of three sub-dimensions named negative consequences of the internet, social benefit / social comfort, excessive usage. In this quantitative research survey design was used. Data in this study were collected from a total number of 365 students studying at four different high schools. In accordance with the analyses carried out in this study suggestions were made for practical and research studies.

**Keywords:** Nature of technology, Problematic internet usage, Negative consequences of the internet

## THE KNOWLEDGE OF SCIENCE TEACHER CANDIDATES ON THE WINDOWS OPENING TO MICRO WORLD

*Gonca Harman, Aytekin Çökelez*

There is need to know about what is the tool, components and functions of a tool at the theoretical level. This study aims to examined the knowledge of last year science teacher candidates on the microscope, the components and functions of the microscope that can be characterized as windows opening to micro world. For this purpose, a data collection instrument which consists of 3 parts has been prepared. Data collection instrument has been applied to 176 last year science teacher candidates. General screening model has been used in this study. The data obtained from this study have been analysed using descriptive analysis. Results of this study showed that more than 4/5 of last year science teacher candidates made correct definitions about microscope. However, a few of the science teacher candidates defined

microscope as a tool used to see and examine clearly, more detailed and enlarged objects that we can see. According to the results of this study, an important part of the science teacher candidates have knowledge about microscope, the components and functions of the microscope and also a few teacher candidates were found to have missing or incorrect knowledge.

**Keywords:** Microscope, Knowledge, Science teacher candidates

## THE MATHEMATICS PRE-SERVICE TEACHERS' VIEWS ABOUT USING MS PAINT SOFTWARE IN GEOMETRY TEACHING

*Alattin Ural*

The aim of the research is to determine mathematics pre-service teachers' views about using MS Paint software in geometry teaching. 53 first year undergraduate students in the department of primary mathematics education attended the research. The students were presented a lot of activities regarding using MS Paint software in geometry teaching by the researcher during fall semester of 2015-16 academic year. At the end of the semester, the students were asked to write their general opinions about the activities, their gains, and thoughts regarding the usage of Paint in geometry lessons in middle school. The current research is a qualitative research and the model applied in the study is descriptive method. At the end of the research, students' views were presented categorically.

**Keywords:** Geometry teaching, Paint software, Mathematics pre-service teachers' views

## THE MEASURMENT AND ANALYSIS OF WIND ENERRGY DATA FOR DIYARBAKIR CITY

*Hibetullah Kiliç, Musa Yilmaz*

Turkey is a rich country in terms of wind energy. It is preferable energy kinds for investment due its some advantages such as clean energy, less operating expenses, having a minimum risk of price uncertainty. Before investing for wind energy potentials and the costs should be determined. Approximately 80 % of electricity generation costs of wind energy are composed of the superstructure spending. Therefore, all data should be investigated before starting investment in a healthy way by experts. Energy Market Regulatory Authority has a condition of minimum one year measurement data obtained by helps of first class measurement equipment of region which wind power turbine is established. Therefore the measurement have to be done by experts in wind power energy. The errors in measurement data will affect the economic benefits of the investment. By using this data in the future production potential of the investment and the investment return figures obtained. The result of this paper show that for Diyarbakır, over 50m pole length is proposed due to the over 50m pole length wind speed will be over 7m/s in Diyarbakır.

**Keywords:** Wind energy, Renewable energy, Anemometer

## THE OPINIONS OF THE ART EDUCATION SENIOR CLASS STUDENTS TOWARDS THE SUBJECT SPECIFIC COMPETENCIES OF VISUAL ARTS TEACHERS

*Armağan Konak*

The present study aims to investigate the attitudes of the art education senior class students towards the subject specific competencies of visual arts teachers that are designated by the Ministry of Education. Personal Information Form and Visual Art Teachers' Subject Specific Competencies Attitude Scale were employed as the data collection instruments. Personal Information Form is consisted of questions including students' gender, age, GPA, and whether there is a teacher in his/her family or not, and whether s/he is going to prefer teaching as a profession after graduation or not, and whether s/he has knowledge on visual art teachers' subject specific competencies or not. A sample of 15 senior class students studying at the Department of Art Education at Mehmet Akif Ersoy University participated in the study. The data obtained by the Personal Information Form and Visual Art Teachers' Subject Specific Competencies Attitude Scale will be examined and analyzed. With respect to the obtained data, it is sought to determine whether there is a statically significant difference between the responds of the students to the Personal Information Form and Visual Art Teachers' Subject Specific Competencies Attitude Scale.

**Keywords:** Visual art teacher, Subject specific competencies

## THE PERSPECTIVES OF MIDDLE SCHOOL STUDENTS TOWARDS SCIENCE AND SCIENTISTS AFTER PARTICIPATING IN ARTVIN NATURE AND SCIENCE CAMP

*Sibel Açişli, Hatice Kumandaş*

"Artvin Natura and Science Camp" was supported by TUBITAK in order to make science and technology-based learning more fun and enjoyable. It is a project aiming to develop students' awareness towards nature and science and gain new information about these two topics. The aim of this study is to determine the perspectives of middle school students towards science and scientists after participating a nature and science camp. The study was conducted on 15 girls and 15 boys (14 6th grade and 16 7th grade students) who were randomly selected from middle schools in Artvin within the scope of TUBITAK 4004-Artvin Nature and Science Camp. In the study, a case study approach which is one of the qualitative research approaches, and a semi-structured interview form was used. Results of these interviews were analyzed using content analysis. NVIVO 10 package program was used in the analyses. In the studies conducted, 30% of the students think that science is "producing, exploring and inventing new things", 17% of them consider science as "explaining the unknown" and 13% of them think that think that science is "learning new information or combining knowledge", respectively. Students describe their role model scientists as those mostly invented technological tools and devices, tried to protect health and nature and facilitated the life of people. Besides, students want to invent a phone, "which will never run out of battery, receives signal everywhere and it can be charged through solar energy" as a technological device. Considering the age group of students, the idea of inventing a cell phone is very reasonable. In addition, the number of students who want to develop a flying car and cancer drugs is higher compared to others. In general, the products wanted to be invented are seen to be useful for society and environment. Only 3% of the students want to develop "undefeated warriors for wars and living creatures with modified DNA" to fight in the wars. As a result, it has been seen that students participating in the project think that science should be used for human interest and scientists must invent products for the benefit of man and nature.

**Keywords:** Science camp, nature

## THE PROFILE OF THE DESIRED TEACHER IN THE PERSPECTIVE OF ACADEMICIANS

*Erol Koçoğlu*

Turkey and institutions established to train teachers in the present so many majors who graduated in the Faculty of Education, is one of the institutions active in the elimination of teacher shortage in our country. Likewise, faculty members in many areas teachers trained in the field working in these institutions, professions and are individuals who have knowledge of general culture. Despite these faculty members teaching in the mission to graduate a lot of teachers who want the most conventional of candidates they are concerned about the level of graduates have the qualifications of teachers. This is the purpose of this study departing from the grounds "like the conventional profile of the Perspective of Teaching Teachers" to determine. The views of this study, semi-structured interviews with faculty members form has been prepared by the researcher. The study is a qualitative research method used; content and descriptive analysis data analysis techniques were used. Faculty members at desired result of the study has revealed that teachers have different perceptions of the profile.

**Keywords:** Education, Student teacher, Conventional profile

## THE REASONS OF THE DIFFICULTY FACED BY SMES IN ACCESS TO BANK LOANS: A STUDY ON TURKISH SMES

*Aysa Ipek Erdogan*

The difficulty experienced by SMEs in access to bank loans is a finding that we frequently encounter in the literature. This study analyzes the reasons of the diffuculties experienced by Turkish SMEs in access to bank loans. Semi-structured interviews are conducted with 10 bank executives and the data is analyzed with thematic analysis method. As a result of the analysis, it is found that banks do not provide credit to firms for which problems are found during the financial intelligence process, newly established firms and firms with high debt ratios. On the other hand, being able to present reliable financial statements, having healthy financial data and being able to collect the receivables affect access to bank loans positively.

**Keywords:** SME, Bank loans, Financial constraints

## THE REASONS WHY STUDENTS DECIDE TO ABANDON STUDIES IN THE REPUBLIC OF KOSOVA

*Artan Luma, Azir Aliu, Sadri Alija*

One of the most disturbing problems of our society is the problem of students' school abandoning. It is a phenomenon that in many stages followed up our society. It is much more profound problem than actually it is considered, because it is inherited from one generation to the other. In this study we consider many fragilities of elementary and pre university education in Kosova. The right for education is guaranteed in all international convents; therefore the society should do much more in analyzing the main factors of

abandoning, in order to make efforts in the direction of stopping the factors which influence it. In this research we are analyzing the main reasons of this phenomenon. For this purpose there are prepared the special questionnaires. The first questioner is fulfilled by the students and the second questioner is fulfilled by the teachers. In total there were surveyed 450 students and 229 teachers from both elementary and high schools in the Republic of Kosova. These data provided descriptive information, quantitative and statistical interpretation. The statistical analysis of the data is made by using the SPSS software. Also we made the prediction of the future reasons using Google prediction system.

**Keywords:** Abandoning, Institution, Poverty, Phenomenon, Education, Stimulation

## THE RELATIONAL EXAMINATION OF SOME VALUES IN THE SOCIAL STUDIES PROGRAM APPLIED IN TURKEY

*Ayşegül Kirtel, Sevgi Coşkun Keskin*

A competent and effective citizen is a person who is aware of his/her values and can reflect these values on his/her life. The lesson that aims to raise a person with these qualifications in Turkey is social studies. Social studies provide the formation of the value concept and application area in an individual. Within this context, it is aimed to reveal the value perceptions and value comparisons of the students getting aneducation in primary or secondary schools. For this purpose, the values of independence, peace, national consciousness and patriotism, which are planned to be developed in the social studies program of the 5th- 8th grades, were selected. In the research, the single screening model of the general screening models was used. The value association test, which was developed regarding the subject to reach the aim, was applied to 269 students in total; 121 students in the 5th grade and 148 students in the 8th grade. The obtained data were subjected to the percentage and frequency analyses on the basis of values. The values, thebreakpointsof which are 30, 25, 20, 15 and above, were associated with each otherusinga mind map. As a result of the research, the mind maps of the students were determinedin terms of values. Examining the obtained results, it is observed that the students confuse the values of peace, patriotism, national consciousness and independence with one another. The students in the 5th and 8th grades associated the value of independence with freedom and the value of national consciousness with Atatürk. While the 5th-grade students associated the value of patriotism with Atatürk, the 8th-grade students associated it with the concepts of homeland and nation. In addition to this, the 5th-grade students associated the value of peace with the value of respect, and the 8th-grade students associated it with happiness.

**Keywords:** Social studies education, Value education, Independence, National consciousness, Patriotism, peace

## THE RELATIONSHIP BETWEEN STUDENT TEACHERS' LEARNING STYLES AND SUCCESS OF THE PHYSICS COURSE

*Nevzat Yiğit, Ümmü Gülsüm Durukan*

The presence of many factors that affect success has been demonstrated by different studies in the literature. In this study, we tried to find out whether the students\\\' preferred learning styles influence their performance in the course. In this context, this study aimed to uncover the impact of the preferred learning styles of students on the success of the physics course. This study was conducted using the survey

model to determine the present situation. The sample of the study comprised 104 students in the elementary science education program who were participating in the General Physics I course. Gregorc Style Delineator and exam questions prepared in accordance with learning styles were used as data collection tools. In addition, questions were asked of the students for demographic information. Analysis of the data, the statistical analysis methods selected by the nature of the variables (Spearman\\\'s rho correlation coefficient, chi-square test, Kruskal-Wallis H and one-sample t test) was conducted in SPSS. When the findings were analyzed, learning styles among the students were determined as: 41.35% concrete sequential, 28.85% abstract sequential, 18.25% abstract random and 11.54% concrete random. While a relationship was not found between learning styles and placement scores for universities (LYS), there was a significant relationship between learning styles and success for the physics course. When the scores that students received on questions prepared for other learning styles (except for their own learning style) were examined, it was found that there was a significant difference between the scores of the students having concrete random learning style and the scores received by other learning styles in the exam questions. This result may indicate that the students having concrete random learning style had trouble answering questions for the other learning styles. Besides, there was a significant difference between the scores received and the scores that it was considered they could get for learning styles. In other words, the difference between the scores received and the scores that it was considered they could get (between 25 and 50) was quite large. From the results, it can be said that the learning style generally affects the success. It is suggested that the students' success could be increased by identifying students' learning styles at the first class and enriching the learning environment via different activities and types of questions in accordance with the learning styles.

**Keywords:** Gregorc's learning style, Success of physics course, Science student teacher

## THE ROLE OF ARGUMENTATION BASED ACTIVITIES ON PRE-SERVICE TEACHER' PERCEPTION OF RISK ABOUT GMOS

*Ayhan Çinici*

In this study, it was investigated the role of argumentation-integrated activities giving pre-service teachers (PSTs) opportunities to consider and discuss all aspects of GMOs on perception of risk about GMOs. The study was applied with one hundred and two PSTs in their third year from two distinct classes at a public university located in a southeast province of Turkey. In the study, both quantitative and qualitative methods were utilized respectively. In the quantitative phase of the study, it was aimed to show and compare of control and experimental groups' perception of risk about GMOs. For this purpose "the risk perception of GMOs scale (pRGMOs) was applied as pre-test and post-test. The data gathered from pre and post intervention of pRGMOs were analyzed by suitable parametric tests, and the results of the analyses showed statistically significant difference between experimental and control groups' risk perception of GMOs. On the other hand in the qualitative phase, the data were collected only from experimental group through individual and group reports and an open-ended questionnaire. The qualitative analyses of individual and group reports revealed differences between PSTs' weighing of pros and cons. As a result, to gain experience on the process of scientific knowledge construction by argumentation-integrated discussions might play an essential role in the development of scientific point of view, and therefore, it can facilitate scientifically more balanced risk perception of GMOs. In addition, an increase was revealed in the PSTs' acceptance of the GMOs in relation to the development of their views about value and importance of scientific knowledge and scientific process.

**Keywords:** Argumentation, GMO, Pre-service teacher training, Perception of risk

## THE ROLE OF POLITICAL MARKETING TOOLS ON DETERMINING THE CHOICES OF YOUNG VOTERS IN 7TH JUNE 2015 TURKEY'S GENERAL ELECTION

*Ibrahim Alkara*

Today the science of marketing began to be used in politics in a professional manner as in many areas. It has become very important to choose the best convenient marketing tools in pursuant of the changing target group for the political parties and candidates targeting to get the votes with the most reasonable costs. With the beginning of the use of internet, electronic mail and Gsms in the middle of the 1990s, new political marketing methods began to be developed in accordance with these developments. In addition to this as our country's population is constituted of mostly by young and middle age groups, they are in the position of the most important political consumer in the parties' target groups. There can be many first time and second time voters in general elections and their votes can have a vital importance in determining the future of political parties or people. In 7th June 2015 election 1 million and 47 thousands firs time voters from domestic and 56 thousands and 66 from abroad were eligible to vote for their country. All these developments and present situation make very important to research the young voters' behaviours. How they act before they decide, which factors affect their voting preferences, which communication tools they are mostly used are the most important issues. When reviewed the literature it could be seen several studies about the previous general election terms. But it was not found a study related to 7th June 2015 General Election. In the study a survey was administered to Bilecik Şeyh Edebali University High School Students. Totally 255 students participated to the research and the data were analyzed by SPSS 22.0 programme. T test and One Way Anova were used to analyze the data set. The results showed that the effect of political marketing tools to voters' choices did not have significant differences among demographic variables in young voters.

**Keywords:** Political marketing, Marketing tools, Young voters' behaviours

## THE ROLE OF TECHNOLOGY ON SCIENCE TEACHING IN PRESCHOOL

*Nilüfer Okur Akçay, Medera Halmatov, Bilal Macun*

Technology is indispensable nowadays for people of all ages and all groups are used in many fields. In particular using in education, increasing the quality of education and is becoming more enjoyable with regard to students for the teaching-education process. Computers, tablets and smart phones is located and prepared for children implementation of children's can critical thinking, they can find different solutions to problems, they can compare the different events for their ability to increase their attention span to develop their ability to observe is quite useful. Due to science lesson children can easily acquire these properties. In this research the use of computer and tablet applications effect on academic achievement of the topic of animals and it features were examined in pre-school education. In this study identified two groups that one of them was the experimental group which teaching computer animation and tablets applications were used and the other group was control group that teacher used drama method for teaching. The study process for four-week and for data collection tool to measure the learning of the children in the study tests (mapping test, painting test) and interview forms prepared by the researchers were used. The result of the research has been found that the success of group technology is higher than the other group.

**Keywords:** Technology, Science, Preschool education

## THE ROOT AND PLANT STEM PROLIFERATION OF SOME PISTACHIO (PISTACIA L.) ROOTSTOCKS (CASE OF TURKEY)

*Özkan Gökçek*

Gaziantep province takes place in South Eastern Anatolian region and it is known as the origin of pistachio trees. Many different local and wilding varieties are grown in a field of 99,273 ha. Pistachio rootstocks, P. vera, P.khinjuk, P.atlantica, P.terebinthus, P.mutica and P. palaestina were used in this study and they were investigated according to their qualitative and quantitative properties. It is very important to find the best rootstocks because of effects on plant growing and yield. The stem lengths differ between 54 and 80 cm among the species. According to the obtained results, P. mutica and P. terebinthus could be used as the rootstock since it is seen to be better in the development of stake root in the arid earth that doesn't have the possibility of watering. The numerous of the side roots through the species varied between 68 and 134. It is also suitable to use P. vera as the rootstock because it becomes prominent in the number of side root, trunk size and length when appropriate watering technique is applied. When Pistacia species compared in terms of their hull length in the development phase, P. vera (61 cm) and P. mutica (59 cm) had more hull length than other species. On the other hand, P. palaestina (36 cm) is the Pistacia type that has the shortest hull length. When Pistacia species compared in terms of their trunk thickness, P. vera (11.2 mm) and P. terebinthus (11.1 mm) are the Pistacia types that have the most trunk thickness. This finding is parallel with Özbek and Ayfer's (1959) findings. In their study, they state that the seedlings of P. vera grow faster in the first years and they grow thicker trunks in early periods, so they become better for grafting faster than the other species.

**Keywords:** Rootstock, Pistacia, Growth, Root development, Trunk development, Trunk size

## THE STORAGE OF SUN ENERGY THROUGH A HEAT MACHINE MECHANISM

*Hasan Düz*

The number of machines that use energy are increasing in every last day and the knowladge that most of the energy use today is supplied from finite fossil fuels is embrassing enough. Since fossil resources is finite and their consumption release harmful exhaust gases to atmosphere. Global warming is a big problem of that century that the world face to. Since accumulation of karbondioksit and e.g gases in the atmosphere much more creates a greenhouse effect. Such like these matters must do the governments and industries take the responsiblity of using and developing the renewable energies. Sun is the biggest energy source to the world. An hour of the sun energy reach the earth surface is enough to all the energy consumption of the world in one year. In this study it was considered that the sun energy can be stored as potential energy through a compressed air tank. This can be barely accomplished by a heat engine. Here, air enclosed in a solar panel will heat and so it will gain pressure. Then the air pressure will drive a double actuated piston cylinder mechanism. A moving piston will compress the embient air to a storage tank at the other side of the mechanism. The compressed air will always be ready for use in applications required. Sun heat machine works according to the principles of ideal Carnot heat machine cycle. It works on an open cycle so the air heated by the sun is replaced with fresh air at every cycle end. The exhausted hot air can also be utilized for water or space heatings. Here a theoretical approach has been developed for the sun heat meachine cycle. In the approach, the thermal efficiency and energy storage capacity was defined analytically.

**Keywords:** Energy, Renewable, Heat machine

## THE TRANSFORMATION OF THE SOCIAL LIFE IN SOLE -PARTY PERIOD IN TURKEY /KONYA SAMPLE (1935-1942)

*M. Murat Çay*

After the extinction of Ottoman Empire, with the establishment of a new management there were not only changes in regime but also Turkish society entered into the process of new image. While some important reforms, made in the early years of Republic, were having worry for being national, developments in ensuing years removed Turkish society from being national and the concept of modernization has been regarded as completely Westernization. With the Republic elites' turning this perception into an ideology in Turkish Society who was agriculturalists and traditionalist had a stagger, and the gap between aristocracy and the community increased. The applications had secularism- based character which was indispensable during the modernization process. Therefore, the idea of reconfiguring the national values and long standing tradition that Turkish Society had, were configured gradually during the period of Atatürk but it was a principle for the whole period of National Chief. This accepted principle will cause the end of sympathy of society to government. In particular, during the single-party period of İnönü, Graeco-Roman culture form that was approved for the Turkish society created a considerable amount of reaction in traditionalist society. This reaction paved the way for a new government (Democratic Party) for the society which was thought that would resolve spiritual problems rather than financial problems. Modernization, gained a certainty in the last century of Ottoman Empire and was manifested quickly in Republic Period, had been a term that was identified with Westernization. This perception caused Turkish Society to get in a bind between East-West cultures and also it was a reason why Turkish Society has had this contradiction nowadays.

**Keywords:** Single-party, Westernization, Modernization, Konya-Turkey, Tradition

## THE USE OF EXPERT SYSTEM FOR EARLY DIAGNOSIS IN THE FIELD OF ANIMAL HOSPITAL

*Ali Hakan IŞIK*

Expert systems are software that able to solve the problem and make recommendation with the previously acquired expert knowledge. These systems facilitate the decision-making processes for experts with the causal relationship. The use of these systems in the veterinary field; to early detection of the disease, in improving the quality of health care services, the implementation of appropriate treatment to the patient, reducing treatment costs and can provide great benefits in preventing medical errors. Today, many studies in the field of expert systems and decision support systems and the results of this study will provide decision support systems have been created through various algorithms. In this study, expert systems developed in the past to the present application, which is discussed in the veterinary and animal hospital field. There aren't any expert system application in the area of animal hospital with the results of the literature. As a result, the use of expert systems animal hospital will put forward the necessary and useful.

**Keywords:** Animal hospital, Expert system, Early diagnosis

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## THE USE OF NEURAL NETWORKS IN SCIENCE EDUCATION

*Nimet Isik, Ali Hakan Isik*

According to the constructivist approach, the knowledge and experiences generated from the past to today owned by individuals is different. Therefore, especially in science education process, different concepts can be perceived by individuals differently. In addition, in the classroom, students' socio-economic status is associated with learning approaches of the concepts. With the developing technology, it has become artificial intelligence applications are also implemented in the field of education. One of them, the artificial neural networks able to derive different actions such as creating of new knowledge through the learning ways which is the characteristics of the human brain, and learning of new knowledge. With this feature, classification based on the demographic characteristics having by each individuals in the classroom and learning process of the concept is performed. Thus, the learning approach of the science concepts for the individuals can be determined and lifelong learners can be performed. In this study, the use of artificial neural network method in other fields of science is investigated and solution offers in science education are emphasized.

**Keywords:** Artificial neural networks, Education, Constructivist approach

## THE USE OF WIRELESS SENSOR NETWORKS IN BEEKEEPING

*Ali Hakan Isik, Çilem Koçak*

Among today's important technological developments, the applications for wireless sensor networks is becoming more and more diversified and confronts us every moment of our lives. Wireless sensor networks which are quite wide application area are mostly used in intelligent systems, military areas, agriculture, industry, safety, medical and office environments. These networks can be applied to each field based on the needs. The data of temperature, humidity, carbon dioxide, oxygen, chemical pollutants and airborne dust levels are measured in the beehive beekeeping which is the one of the areas of wireless sensor networks. It is trying to increase honey production by analyzing the data that effect to bees. In this study, examination of the nature of the event with the help of wireless sensor networks, monitoring of climate change and in order to prevent the occurrence of disease studies were analyzed to improve efficiency honey beekeeping. Analysis results showed that using of wireless sensor networks is beneficial to increase the efficiency of honey.

Acknowledgment: This study is supported by Mehmet Akif Ersoy University 0330-YL-16 project.

**Keywords:** wireless sensor networks, beekeeping, remote monitoring

## THROUGH THE WORD ASSOCIATION TEST 8. GRADE STUDENTS ' CITIZENSHIP AND HUMAN RIGHTS EDUCATION CLASSROOM STUDY OF COGNITIVE STRUCTURES FOR SOME CONCEPTS,

*Mehmet Mustafa Kizik, Alican Köse, Merve Koca, Mustafa Gurultu*

The aim of this study; Through the Word Association Test 8. class and the students of cognitive structures of citizenship and human rights education in how frequently used concepts is to determine the students ' perception and concept of illusion.This work is Gaziantep provincial education Directorate for secondary school 8. 110 students studying in the classroom. Rights, responsibility, equality, democracy, justice and law concepts guide concepts. The data obtained in the research for the frequency table has been

created.Then the frequency table inspration 8.00 programe have been analyzed.According to the break point as determined in research; most of the words of the boy, who was not selected again, education, games, the right to life, health, travel, to do its business, homework, give tax, legal and the words to be fair. research results and discussion section of Word Association test with this and similar studies were compared with each other. As a result, Word Association tests, students learn how the concept of meaning they have installed a measuring tool was found to be suitable for.

**Keywords:** Word association test, Citizenship class, Congnitivite structure

## TOURISM GEOGRAPHY LESSON WITH TRIP OBSERVATION AND OTHER INTERACTIVE METHODS

*Ozkan Akman*

The purpose of this study is to examine effects of using cultural and educational trip observation techniques on academic achievements of social studies teacher candidates in Tourism Geography lesson. The study in which nested experimental design, one of the mixed model designs, is used, was carried out together with 2nd grade students of Gaziantep University Nizip Faculty of Education, Department of Social Studies (experimental: 15; control: 13). Data was collected with "tourism geography lesson mid-term questions" and "trip observation form"; it was analyzed by using "observation content analysis" with "Two-factor ANOVA for mixed Measurements", "Wilcoxon signed-rank" and “Mann Withney U” tests. As a result of the study, it was determined that success of students increased in a meaningful way and students developed positive attitude towards the lesson and their patriotism significantly increased in tourism geography lesson which was enriched with trip observation method and other interactive teaching methods by the researcher. This method which was used, has been recommended to be used in teaching of future tourism geography lesson and other lessons.

**Keywords:** Trip observation method, Tourism geography, Social studies teacher candidates

## TOWARD A NEW HORIZON IN DIGITAL MARKETING: SOCIAL MEDIA MARKETING

*Naciye Güliz Uğur, Merve Türkmen Barutçu*

Social media has gone mainstream and it represents an unprecedented marketing opportunity that transcends the way companies connect and communicate directly with customers. Nearly every business is exploring social media marketing initiatives with their vision and business plan to better promote their products and services. Social media is the fastest-growing segment in the interactive marketing category and companies overall will spend upwards of thirty percent more this year than they did last. This paper examines the findings from the literature and several case studies to suggest useful tips and insights for companies which decided to utilize social media marketing for enhancing their marketing capabilities.

**Keywords:** social media marketing, social media, marketing, new approaches, advertisement

## TRACES OF THE DEDE KORKUT STORIES IN TALES OF TURKMENS OF GÂVUR MOUNTAIN (JABAL-I BEREKET)

*Fahri Dağı*

We see the Turkish epic tradition of Dede Korkut, one of the most beautiful examples in Turkish literature, not only in the whole Turkish world but also in Anatolia. Turkmens came to the Gavur Mountains in VIII. Century with Abbasi armies. Geographically, Gâvur Mountain located between Hatay and Cukurova plain. The traces of Dede Korkut stories searched with stories of Dağı's book titled "Gâvur Mountain (Jabal-i Bereket) Turkmen Tales" which includes the stories of Oguz Turkmens. In our paper, we included some points that came from Dede Korkut stories were examined such as, "Overhead", "animal ancestors cult," "Up raised by animals", "arrow throwing marriage " the other (parallel) world "," rapid growth "," alpine sleep (forty days and sleep) " "cannibalism".

**Keywords:** : Dede Korkut Stories, Gâvur Mountain, Tables

## TRAINING OF THE VILLAGERS IN THE LIGHT OF THE EDUCATIONAL SPECIALISTS OF AMERICAN ORIGIN OPINION

*Yusuf Keskin, Hatice Söylemez*

Interest in education has raised many comments and suggestions since Republic of Turkey's inception. This proposal of the center, which is the vast majority of the Turkish people, has been the dissemination of the village and the villagers of education. reports on the training of several foreign experts who prepared it is known that the proposals on rural education. When the history of education of Turkish Republic period was studied, especially by the end of 1950, it is seen that many foreign educators were invited to Turkey. The number of teachers of foreign origin is quite high, especially from the US. In the study, the reports prepared by J. Dewey (1924), Beryl Parker (1934), the delegation of E. Walter Kemmerer presidency (1933-1934), W. Dickerman (1951) John Ruf (1951), RJ Maas (1953) and M. Costata (1955) were investigated. The aim of the research is to determine the views and suggestions on the subject of education in the village and villagers determined on reports prepared by foreign experts.

**Keywords:** Training of the villagers, Rural education, Foreign specialist reports

## TURKISH LANGUAGE TEACHERS' ATTITUDES TOWARDS USING TECHNOLOGY IN EDUCATION

*Tahir Gür*

Attitudes as one of personal characteristics have great impacts on person's behavior and reactions and related his/her past experiences, information, beliefs and values. Attitude is the most important factor that determines the approach of the individual to a subject. For this reason for desired behaviors and knowledge both students and teachers should have positive attitudes towards them in education. In this

study, attitudes of Turkish language teachers toward computer and technology were investigated. The study group was consisted of 126 Turkish Language teachers working in Gaziantep and Şırnak. For the quantitative part of the study "attitude scale for computer assisted learning" used and data analyzed with SPSS software. 16 teachers working in Nizip providence were interviewed with open ended questions and data analyzed with using discourse analysis technique. According to the results of the study, negative attitudes increases by the age but not in statistically significant level. There is also no significant difference by gender. The lack of appropriate technology to use in Turkish education, and the lack of adequate software support and material, and insufficient training in university education and vocational education were shown as main causes of negative attitudes towards technology and computer use in education.

**Keywords:** Turkish teacher, Attitude, Computer aided instruction

## TWO NEW TAXA RECORDINGS FOR MYXOMYCOTA IN TURKEY

*Dursun Yağiz, Ahmet Afyon*

The myxomycete samples given in the study were developed from the materials germinated in the laboratory and collected from the province of Isparta field works in 2008-2009. As a result of investigations carried out on the samples of which sporophores were developed in the laboratory, Diderma globosum Pers. (Didymiaceae) and Echinostelium brooksii K.D. Whitney (Echinosteliaceae) ) species were been identified. As a result of the literature research, it is determined that these taxa have been found for the first time in Turkey. These taxa detected were added to our country's myxomycete. These two taxa' microscopic features, photos, descriptions, localities and substrate information were given.

**Keywords:** Myxomycete, Diderma, Echinostelium, New record, Türkiye

## USE OF AHP-BASED MOORA METHOD FOR EVALUATING THE PERFORMANCE OF HIGH SCHOOLS IN TURKEY ACCORDING TO THE PLACEMENT RATES OF CANDIDATES TO HIGHER EDUCATION PROGRAMS

*Asli Çaliş, Cevriye Temel Gencer*

University helps people for looking at life through wider angle and occurring consciousness of being an individual besides providing a job. In our country, the number of high schools have increased over the years depending on the social development and university degree has become valuable. In these days, having education in a good high school is one of the prerequisites to get into a good university. In this study, it was aimed to evaluate the eighteen type of high schools in Turkey according to the placement rates of candidates to higher education programs with AHP and MOORA which are Multi Criteria Decision Making Methods. In the study, placement rates at three levels to undergraduate and associate degree programs were considered as criteria and analysis results were interpreted.

**Keywords:** High schools types in Turkey, Multi criteria decision making, AHP, MOORA.

## USE OF ENVIRONMENTAL FRIENDLY ENTOMOPATHOGENIC NEMATODES FOR BIOLOGICAL CONTROL OF PEST INSECTS

*Manana Lortkipanidze, Oleg Gorgadze, Nino Gabroshvili, Madona Kuchava*

Bioprotection is a holistic concept of direct relevance to the sustainability of agriculture, food safety, and the protection of the environment, including biodiversity. Bioprotection has become a major economic issue of concern to governments, agricultural industries and environmental organizations worldwide. Phytophagous insects occupy a significant position among the living organisms that cause much damage to cultivated plants and forest species. There is an urgent need to accelerate the development and implementation of cost-effective, environmentally safe alternatives to chemical pesticides for insect control. Insects have many types of natural enemies. As with other organisms, insects can become infected with disease-causing organisms, called pathogens. Soil serves as a natural home and reservoir for many kinds of insect pathogens, including viruses, bacteria, protozoa, fungi, and nematodes. We can take advantage of these natural enemies of insects to help manage insect pests. The use of natural enemies to manage pests is called biological control. The study of insect diseases has enabled the scientists to state that, besides entomophages, there are other disease – causing organisms, such as bacteria, fungi and entomopathogenic nematodes EPNs, which have drastic effect on harmful insects. EPNs parasitize in plenty of organisms, insects among them. Insect-pathogenic nematodes of the family Heterorhabditidae and Steinernematidae have been known for decades as effective biological agents of insect pests. These nematodes can actively locate, infect and kill a wide range of insect species. Massive produced of EPNs can be carried out via their cultivation in specially processed and generally accepted feeding media. We suggest more effective and economic in vivo media for nematode cultivation.

**Keywords:** Bioprotection, Entomopathogenic nematodes, Bacteria, Biological agents

## USE OF LASER SCANNERS FOR CAVE MAPPING: THE CASE OF AYVAINI CAVE

*Hasan Bora Yavuz, Doğan Savran, Gürkan Tuna*

Cave surveying can be described as the process of measuring a cave. During the cave surveying, an accurate and detailed map of all or part of a cave system is created depending on the available equipment and cave conditions. If an accurate survey is not realized, any resulting map will be of limited use for comparing caves to each other in terms of length, depth and volume. Case surveying generally provides a spatial reference for other areas of a scientific study and assists visitors with route-finding. In recent years, the most commonly used equipment in case surveying are laser scanners. In this study, to prove the usability and accuracy of laser scanners for case surveying, a case study has been carried out in Ayvaini Cave situated southeast of Lake Uluabat in Bursa, Turkey and its results are presented in this paper.

**Keywords:** Cave, Measuring, Mapping, Laser scanner, Three dimensional maps

## USING DATA DRIVEN STRATEGIES TO ENHANCE VOCABULARY ACQUISITION

*Kirk Dowswell*

Undergraduate students are exposed to discipline-specific lexis and concepts, particularly when studying in a second language. Current research; Laufer & Ravenhorst-Kalovski (2010), Nation (2006), suggests that most students find it difficult to fully comprehend academic reading material because they lack the requisite vocabulary, (5,000 to 8,000 word families for 95% to 98% comprehension, respectively). It has also been suggested that teaching vocabulary specifically is not an efficient use of classroom time. Thus, to enhance vocabulary acquisition and, ultimately, to improve reading comprehension, this study evaluates the use of mobile and Web 2.0 technology, as self-directed learning tools, in order to improve vocabulary acquisition by means of the "Involvement Load Hypothesis", Laufer & Hulstijn (2001). This construct requires that students engage in cognitively demanding vocabulary-learning tasks that aid retention. Used in conjunction with a discipline specific corpus created with the SketchEngine application (http://www.sketchengine.co.uk/), a course wiki developed to promote student collaboration, it is anticipated that this unique intervention will improve vocabulary acquisition with the minimal use of classroom teaching time. If this is the case, then this framework could be applied to learning the specific vocabulary required by other academic courses.

**Keywords:** Teaching with technology, Vocabulary acquisition, Mobile learning, Self-directed learning

## USING INFORMATION TECHNOLOGY TO ENHANCE BUSINESS EDUCATION IN PALESTINE A THEORETICAL VIEW

*Sharif Abu Karsh*

To use information technology to improve learning processes, the pedagogical assumptions underlying the design of information technology for educational purposes must be understood. This paper reviews different models of learning, surfaces assumptions of electronic teaching technology, and relates those assumptions to the differing models of learning. Our analysis suggests that initial attempts to bring information technology to management education follow a classic story of automating rather than transforming. IT is primarily used to automate the information delivery function in classrooms. In the absence of fundamental changes to the teaching and learning process, such classrooms may do little but speed up ineffective processes and methods of teaching. Our mapping of technologies to learning models identifies sets of technologies in which management schools should invest in order to informate up and down and ultimately transform the educational environment and processes. For researchers interested in the use of information technology to improve learning processes, the paper provides a theoretical foundation for future work.

**Keywords:** Technology , Business education, Palestine

## USING THE GRAPHIC DESIGN TO DESGIN SHOWCASE

*Gökçin Çubukcu, Göknur Sözüneri*

Reputable organizations often provide a customer focused service and aims to develop and change themselves by creating new strategies on the notifications they receive from their clients. But this application is not enough to attract the customer to the store, and only helps in assessing in evaluating the ideas of customers who know that brand. Here, design showcase intervened, and the existing customer portfolio, as well as by providing potential customers to see the products, try them and buy into their store to wake the curiosity and helps to get more accurate results by pulling different target groups. Showcase design today develops itself very quickly, constantly implement by following the latest trends in a specific period, in this way, customers into the store, pulling the notifications center that allows access to accurate and reliable data stores is an important factor. Size reached in visual merchandising has been moved to that next level of corporate stores in certain periods throughout the year to showcase their design, are planned by allocating specific days and season and by persons trained in design and are making customers upon request by experienced people. Showcase design, not only the product is a form accepted the fact that it is also important forms of presentation. The format of this presentation is the dimension of the window in the quality of materials used, the right light, the right color, the cleaning elements as well as the use of graphic design elements and principles has an important place in the topic that have been given to about.

**Keywords:** Showcase, Design, Graphic, Audience

## USING THE HEALING POWER OF LITERATURE

*Halide Gamze Ince Yakar*

Humanity from the beginning of existence, it produces the myth that protects the life, that formats the life and has made the life valuable. Mythological period of these stories and the value transferred to the Anthropocene period of the society and create a new sense of the ground in the depths of contemporary world literature. Common subconscious and provide value in areas such as transfer of the structural features of the brain have been made by many research disciplines. However, there is a functional link with between literature-education and between literature-psychology disciplines. Selection of the desired behavior used to gain literary or psychological treatment processes and methods of use also is important. In our study, we will examine the purpose of using literature for different disciplines and examples of important literary texts. At the same time, we will discuss functional use of literature in different disciplines and issue, type, heroe topics.

**Keywords:** Literature and education, Literature and psychology, The healing power of literature

## USING THE WHATSAPP AS A PLATFORM FOR SCIENCE TEACHERS' INTERACTION

*Serhat Ercan, Esra Bozkurt Altan*

Professional development is a necessity for all teachers due to changes in pedagogies, changes in curriculum content and changes in educational objectives. It is argued that the time-limited formal professional development programs are effective activities for teachers' professional development. In addition to these formal programs teachers, as a professional community, need interaction with peers. The rapid development of mobile communication technologies in recent years provides opportunities for professional interaction among teachers. In this study WhatsApp, a smartphone application for instant messaging, used as a platform for creating dialogue and encouraging sharing among teachers. 19 in-service science teachers who participated the 8-day professional development program which is developed by researchers have joint the WhatsApp group. There is no limitation for teachers in sharing on the WhatsApp group. Although researchers have participated the group, none of the conversations has been started by them. They answered the questions which were asked them directly in the dialogues. The purpose of this study is to explore professional communication among teachers using WhatsApp application. The qualitative research paradigm was used in this study. Collected data were analyzed by using content analysis method. The analysis of data indicated that WhatsApp application provides appropriate platform for teachers' interaction. Teachers shared their ideas about various subjects, such activities as leading to their professional development.

**Keywords:** Science teachers, Professional development, Mobile communication technologies, WhatsApp application

## USING UNMANNED AERIAL VEHICLES TO SURVEY AND MANAGE OPEN PIT MINES

*Doğan Savran, Hasan Bora Yavuz, Gürkan Tuna*

Although terrestrial laser scanners are commonly used by mining companies to survey and monitor mines in order to increase productivity and improve competitiveness in the market, there is an increasing interest in the use of unmanned aerial vehicles (UAVs) for the same purpose. Because, UAVs have emerged as a new and very effective solution for many applications and offer many advantages over traditional surveying methods. In this paper, the details of a field experiment are presented to evaluate the efficiency of UAVs in open pit mine surveying applications. As shown in the paper, the use of UAVs for surveying tasks can reduce cost without hindering accuracy. In addition, surveying tasks can be completed in far less time if UAVs are used.

**Keywords:** Unmanned aerial vehicles, Mining, Volume estimates

## UTILIZATION OF MARINE FULL MISSION ENGINE ROOM SIMULATOR FOR RESEARCH PURPOSE

*Gazi Koçak, Yalçin Durmuşoğlu*

The full mission simulators are widely used in mariner's education. These simulators are for marine engineers and navigation officers. For marine engineers, full mission simulator which is the simulator of whole marine power plant is utilized. These simulator based trainings became mandatory for mariners education by International Maritime Organization (IMO). These simulators may be very simple for teaching marine operations. Besides, there are also very complex and realistic marine simulators. These simulators are mainly used for education purpose. Unfortunately, these simulators are not much used for research. However the realistic simulators have a great potential to use for research purpose, as well. This is because these simulators can simulate extremely dynamic systems very close to real systems. Various scenarios can be generated and also many kinds of malfunctions can be introduced. It is also possible to observe the data and trainers behaviors during operation of simulator. ITU Marine Engineering Department has a realistic full mission marine engine room simulator. This simulator is used for education of students and also for training of current marine engineers. However, it is also used for research studies such as ergonomics, human factor, energy efficiency, system dynamics, control systems, power systems etc. In this study, the mentioned full mission simulator is introduced and the researches carried out with this simulator are explained. Even more, potential research areas using this simulator are pointed out.

**Keywords:** Engine room, Marine, Research, Simulation

## UTILIZING ENVIRONMENTAL AND CULTURAL SOURCES OF ART EDUCATION STUDENTS

*Mahmut Sami Öztürk*

Art has existed since the emergence of mankind. The role of art varies in different phases of humanity. In accordance with this period, art takes on a more important mission. This is the education aspect of art. Education of art appears in developed countries as an educational movement. According to this movement, the human being who is forced to be routinized will be able to get rid of this through creative education. It is not a coincidence that art education emerged at the same time with the industrial revolution. Creativity and freedom, the innate traits of art, have been considered as a solution of mechanization and being monotonousness. Through this study, the awareness of the students about artistic activities is measured, considering that the education given by our institutions of art is important for the development of the concept of art which is never regarded away from socio-cultural life. As a necessity of modern art education, creating a society sentient to art and artists, and also developing aesthetic environment consciousness are one of the primary conditions of production of contemporary knowledge. In this respect, the purpose of the study is to determine what are taken into consideration during the creation of the subjects, techniques and content and the sources used by young individuals who are being trained to create art.

**Keywords:** Art education, Environment and culture, art.

## VALUE PROBLEMS AND SOLUTIONS IN THE MULTICULTURAL ENVIRONMENT FOR PROSPECTIVE SOCIAL STUDIES TEACHERS

*Sevgi Coşkun Keskin*

According to Greverus (1982) culture is a potential that human allows the inclusion to inner and outer nature changing and formatting in order to survive as a species and organism. Human creates values and tools moving its environment and concerning the environment in the process. These values and tools are interacted with mobility in earth for various reasons and the tendency to respect diffrences is occured. This process is revealed the concept of multiculturalism. Today, the concept of multiculturalism includes different race, ethnicity, language, religion, belief, gender, age, social class, disability and cultural dimension. People must be trained in this way for this multicultural structure live together peacefully. In our country social studies is a lesson that is adressed in educational sense of this issue. Therefore teachers who will give this lesson should be trained conscious and sensible in this point. This study was intented to ensure that social studies prospective teachers make the description about value problems in multicultural environment and this problem's possible solutions .The research was made with the phenomenological approach that is qualitative research method and it was carried out to 110 social studies prospective teachers with a semi-structured interview form. The coding was performed by taking specialist opinion. In the coding result was found that the vast majority of prospective teachers perceived multicultural structure as multinational population, different race, language, religion and ethnicity with a varity of cultural values; fewer emphasizes on features like social class,gender and life of multicultural structure; didnt mention to age and disability dimension. In the context of problems it was also found that they emphasize oppositions, conflicts, intolerance, assimilation and respect for diversity. In the solution of these problems they were proposed that educatin carry out in effective way for awaraness at the point of seeing diversity as richness.

**Keywords:** Multiculturalizm, Prospective social studies teachers, Problems and solutions in the multicultural environment

## WASTE IN TURKISH SCIENCE CURRICULUM

*Ramazan Çeken*

Waste is unwanted substances that are left after you have used something and residue is an unuseful substance that remains after a chemical process. As seen in the biology textbooks, there is not a clear use of such terms though the anatomical meaning of them is clear. These mis-use of cellular wastes and digestive wastes is an important concern in TSC and testbooks as well. Therefore this study mainly based on determining the use of both terms in TSC and related documents. For an overall looking for excretion and elimination content in TSC from 3 through 8 grades, the official documents and textbooks were subjected to document analysis. The similar terms collected under the same category in accordance with the content analysis technique. As it is known that digestive and excretion systems are responsible for the elimination of the product of human body, there are important differences between digestive and excretion products. This documentary research clearly points out that there is not a distinction regarding the meanining mentioned above in TSC and science textbooks at elementary level. It is interesting that there was not a similar seperation in the privious curriculum applied from 2005 to 2013.

**Keywords:** Waste, Excretion and elimination system, Turkish science curriculum, Misconception

## WEB-BASED LISTENING EXAM ACCEPTANCE: COMPARING FRESHMAN AND SOPHOMORE STUDENTS AT A VOCATIONAL COLLEGE

*Harun Cigdem, Mustafa Ozturk, Abdullah Topcu*

Assessing learner performance in a foreign language teaching setting has always been a challenge for instructors due to pragmatic reasons and Web-based Exams (WBEs) have been lending a helpful hand with assessment procedures by virtue of their advantages of security, cost, accuracy, and time saving. Being increasingly popular in recent years, WBEs are attributed to be effective methods of testing and evaluation, because they not only reduce time and effort required for exam generation and scheduling, but also enable more efficient recording, grading, and further analysis on the results. For this reason, a growing number of secondary and higher education institutions are adopting WBEs to evaluate their students' achievement. However, there is another significant issue as much as employing WBEs in educational settings: learners' acceptance of WBEs. Building on this point, this study aims to investigate the factors influencing language learners' acceptance of WBEs in terms of the following variables: Goal Expectancy, Social Influence, Facilitating Conditions, Computer Self Efficacy, Content, Perceived Usefulness, Perceived Ease of Use, Perceived Playfulness, and Behavioral Intention. The study was conducted in 2014–2015 academic year with the freshman and sophomore students of 'English as a Foreign Language' course at a vocational college. The data were collected via an online questionnaire from 602 participants having used the web-based listening comprehension exam system and analyzed through descriptive and inferential statistics (independent-samples t-test). The overall results of the study indicated that the participants were not inclined to use WBEs although sophomore students favored WBEs slightly more than the freshman students did. The inferential analysis put forward a significant difference between freshman and sophomore students in terms of all factors except goal expectancy. In this sense, it is assumed that having more experience with WBEs could create a positive orientation in the students' acceptance of WBEs.

**Keywords:** Web based exam, Vocational college, Technology acceptance

## WHAT DO HIGH SCHOOL STUDENTS KNOW ABOUT DISSOLUTION AND DIFFUSION CONSEPTS?

*Çiğdem Şahin, Fethiye Karsli*

The aim of this study was to expose high school students' cognitive structure and alternative conceptions about dissolution and diffusion. The study was carried out in the form of a case study one of the qualitative research methods. Fifty four (30 girl and 24 boy) 9th grade students participated in this study. As data collecting tool, "independent word association test" (IWAT) and "a form consist of two open-ended questions" were used. Dissolution and diffusion concepts were determined as key words for the IWAT. These concepts were written five times under the other. The students wrote the first words coming to their mind related to dissolution and diffusion concepts in the 30 seconds. In the first question of the form, students explained the dissolution and diffusion concepts. In the second question of the form, students drew related to the dissolution and diffusion concepts in the 10 minutes. Qualitative data were analyzed with the content analysis method. The data obtained from the IWAT were examined that students associated the dissolution concept with 63 and the diffusion concept with 84 different words. Students repeated commonly soluble, solvent, sugar, water, salt words as related with the dissolution concept and density, substances transition, substances, water, transition, and cell membrane words as related with the

diffusion concept. When were examined definitions of the student about dissolution and diffusion concepts, it were seen that they expressed the views “affecting factors of the dissolution speed”, “dissolution”, “the type of mixture”, “affecting factors of the diffusion speed”, “the kinds of diffusion”, “substances transition”, “actualizing medium of diffusion” and “unrelated” themes. Also, it was determined that students drew often “partially correct” and “unrelated” categories related with dissolution and diffusion concepts. Furthermore some students confused dissolution and diffusion in their drawings. Probing of the students’ cognitive structure and alternative conceptions about dissolution and diffusion concepts should be researched by using different data collecting tools such as interview about concepts, prediction-observation-explanation.

**Keywords:** dissolution, diffusion, independent word association test, drawing, alternative concepts, high school students

## WHAT HAPPENED AT THE IRAQ FRONT ACCORDING TO A BRITISH OFFICER?

*Levent Yikici*

1st World War, which has been one of two most bloody and most wide-ranging wars throughout the history and called as “Great War” by the Europeans, was an unavoidable gamble for Ottoman Empire which was in a struggle of existance or non-existance.Gorgeous 600 year-old Turkish-Islamic State,which had to choose one side between two poles,either it would perform an advance to save the exploited nations who were waiting for its charge or it would be lost with them in the pages of history. Britania which was one of the main actors of the war had to save the territories in his hand to go on its imperial plans and had to find new enemies to reach new lines. The Ottoman who led her troops to a scattered front map by the effects of her ally,Germany, had to reinforce her poor troops in Iraq where was not estimated to be attacked against British Royal soldiers coming from India and England and gained a victory which was not predicted by the enemy. It is a necessary endeavor to contribute the science and learn the aspects of the counterpart and getting lessons from the martial and social experiences of an English officer who fought at the British fronts.

**Keywords:** Ottoman Empire, Britania, Indian Troops, Iraq Front

## WHAT IS DURA PROJECT?

*Mustafa Şahin Bülbül*

The word DURA means stable and steady in old Turkish, it is not initials of any group of words. This study is made to design a steady and stable technological tool for blind and deaf learners. Products of DURA are video files but we enriched these video files with subtitle and a human voice of what was written in the subtitle. DURA Project includes how to add these voice and subtitle with open source tools. Moreover, we split the video screen for real record and pictures. In the right side, abstract and micro-scaled explanations can be seen but in the left side of the video concrete and macro-level records of any phenomenon can be seen. DURA products are not GIF images, animations or teaching videos; they are enriched video files that anyone can create with open source software according to DURA Project principles. This project explains these principles that includes how to describe what is happening in the video and examples for users.

**Keywords:** Video, Micro-macro level, Abstract-concrete presentation, Deaf and blind learners

## WHEN SCIENCE MEETS WITH TECHNOLOGY: UNDERSTANDING GENETICS CONTROVERSIES VIA LENSES OF TECHNOLOGY

*Ümran Betül Cebesoy, Ibrahim Delen*

STEM (Science, Technology, Engineering and Mathematics) Education has become a necessity for science and technology driven world. Personal and societal decisions are becoming more important and the role of scientific and technological understanding have increasing role in making these personal and societal decisions (National Research Council, [NRC], 2011). A curriculum that integrates different disciplines including science, mathematics and technology innovate and invent about using their scientific and mathematical understanding by the help of technology (Kennedy & Odell, 2014). The successful integration of curriculum, however, is possible with effective implementation of integrated subjects. Thus, the teachers themselves have critical importance in effective implementation of integration of different disciplines. Socioscientific issues (SSIs) focus on controversial and ill-structured problems (Zeidler, Sadler, Simmons, & Howe, 2005). The genetics controversies as part of SSIs present a unique way for integrating science with technology. In this study, we explored how pre-service teachers interpreted the role of technology while making decisions in genetics controversies. We interviewed with seven pre-service science teachers by using semi-structured interviews via four developed scenarios about genetics controversies. We found that pre-service teachers believed the importance of teaching genetics controversies but at the same time they had some concerns about technology. Their technological concerns were mainly focused on the credibility of technological innovations used in genetics. Most of the pre-service teachers also indicated that they had concerns about the side effects of technological applications. They also were concerned with the risk factors associated with technological innovations. Participants' concerns regarding the role of technology and technicians in the development and application of new genetic technologies was found as another important finding.

**Keywords:** Technology, Pre-service teachers, Genetics controversies

## ANALYSIS OF PRODUCTION SYSTEMS IN DAIRY FARMS OF SETIF AREA (ALGERIA)

*Benidir Mohamed*

Algeria is the largest consumer of milk in North Africa, nearly 140 liters / capita approximately 80 liters are imported.Consumption has increased by 81% since 2000 (ITELV, 2012). Domestic raw milk production is estimated at 3.14 billion liters, whose 73% are supplied by the cattle population (2.3 billion liters). Half of the bovine milk production is provided by Modern Dairy cows comprising less than 30% of the livetock number in dairy cows totaled 966,000 heads.The wilaya of Setif is considered a dairy cluster in Algeria with a cattle number estimated at 128,574 head, including 72,966 dairy cows and a milk production of around 250 million liters per year (DSA, 2012), but productivity of farms remains low.In this context, this work aims to characterize the dairy farming production systems in the wilaya of Setif. A survey was conducted between October 2012 and May 2013. Feeding is the problem that is acute to farmers. Feed resources are from three sources: i) produced in farm (grown forages, byproducts), ii) provided by the free occupations (public lands) which are either grazed and / or mowed, and iii) purchased (hay, straw and concentrate feed). The practice of natural mating is widespread in the study area (80%).The artificial insemination (AI) is therefore poorly developed. This is due to a lack of control of the AI due to lack of experienced

people.The development of dairy farming is inseparable from the intensification and diversification of forage crops, which requires the conversion of rotations from cereal crops-fallow to cereal crops-forage legumes.

**Keywords:** Cattle, Milk, Production, Setif, Semi-arid.

## ATTITUDES TOWARDS EVOLUTIONARY THEORY OF THE FACULTY OF THEOLOGY AND BIOLOGY STUDENTS

*Mehmet ÖZASLAN, Sevgi GEZİCİ, Nazım ŞEKEROĞLU*

In the present review, we aimed to evaluate of differences in viewpoint the evolution theory and discuss the reasons for these differences at the biology and theology students. Scientifically, evolution theory are changes and developments that occur in living things. Natural selection, mutation, gene flow and genetic drift are the basic mechanisms that triggered realization of evolution. When the students' views have been analyzed with regard to the theory of evolution, most of the students evaluate this theory as scientifically valid case; whereas, some students don't evaluate it as scientifically valid case, due to their religious beliefs and prejudices. Because the evolution is a controversial topic in the religious beliefs, the students consider that when they accept one of they have to reject the other. Even many students from both department are either unaware or undecided about what the evolution means in the full meaning. Consequently, the attitudes of the faculty of theology and biology students are different against to the evolution theory, because of the differences in their received education. This review is an assessment of the situation, to analyze the viewpoint of students' from different departments should be prepared 'Evolution Teaching Intention Survey' and made efforts for elimination of what is wrong known about the theory of evolution by analyzing data survey.

**Keywords:** Evolutionary theory, biology students, faculty of theology students

## COMPUTERISED STUDENTS'ORIENTATION AND REGISTRATION IN THE ALGERIAN HIGHER EDUCATION

*Mohammed Meziane, Fekih Laid*

Convinced by the importance of education in the promotion of the society, Algeria choice has been the adoption of education for all policy.Universities, National Schools and all Universities Centers are all public and thus, they are financed by the state. Student's enrolment is set free of charge. In addition students can benefit from accommodation and an aid of scholarship. The acceptance in Universities, students must have a baccalaureate « Bac » the certificate of high school. The 97 Universities which are located throughout the country are not totally independent for selecting students who got their Bac, but they are submitted to a national computerized system which is made to place students to each university. The system besides the requirement of the success of Bac, the accompanied grades made the difference in orientation and placement. Student's mobility is restricted in such system. That means that the locality where student had his Bac will be oriented to the university which is in this site, unless if the major does not exist in this university, in this case orientation is permitted and the system offer students other option. The system, however, gave students a choice to determine some majors by priorities according to their grades in the Bac. In general, the system seems to allow students to register in the field falling in their choices or close to

it. Even though, the existing calendar that fix the registration steps, one can notice in each academic year the delay of the starting studies, and in some cases this fact took a regrettable educational falls which led to a lot of managerial hassles. This paper will present this approach of student's orientation to different local universities « The computerized system of student's orientation and registration ». Some questions can arise in this matter for a better understanding such as: What are the different steps of student's registration? What are the advantages of such system and its different pitfalls? Could higher education succeed in bypassing the student's registration delay once for all?

**Keywords:** Students orientation registration higher education

## EVOLUTION PERSPECTIVES OF DEPARTMENT OF MOLECULAR BIOLOGY & GENETICS STUDENTS IN TURKEY AND EUROPEAN COUNTRIES

*Sevgi Gezici, Mehmet ÖZASLAN, Esra KARADUMAN*

In this review, it was aimed to assess the differences in viewpoint of evolution of the department of molecular biology and genetics students in Turkey and European countries. Molecular biology and genetics has emerged with the development of cell biology, biochemistry and especially genetics, announced its name recently and so, it is one of the most rapidly advancing science in the recent years. Human being has interested in living things that living as their own for the centuries, investigated how they are born, how they are live. Evaluation means changes in genetic composition of the population under the effect of several factors depending on the time. Nowadays, evolution theory has still not sufficiently understood, despite all the scientific proof and its powerful position around the science world, and this situation arises from some differences in evaluation education. Researches have shown that a large number of university students are either unaware or undecided about what the evolution means exactly. In addition to this, students in Turkey and European countries have different point of view to the evolution and natural selection. In Turkey, 50% of all the students reject the theory of evolution, and consider that the evolution theory should be taught together with creationism, while, this ratio is about 20% in European countries. These differences are resulted from various factors, the teaching of evolution exactly to university students is the main factor which causes these differences in the rates. As a result, while researches related to evolution has accelerated in recent years, it is important to investigate the conditions that effecting to the students in terms of a through understanding and learning the evolution.

**Keywords:** Education, evolution education, molecular biology and genetics students.

## IMPORTANCE OF MULTIDISCIPLINARY STUDIES AT POSTGRADUATE LIFE SCIENCES EDUCATION

*Mehmet ÖZASLAN, Nazım ŞEKEROĞLU*

Life Sciences such as biology, chemistry, mathematics, physics could easily been tough as fundamental of developments in our daily life. Novel inventions in these sciences affect directly or indirectly living organisms on the worldwide. From environment to technology every new data is important to conserve, sustainable use and development of sources used. In fact, all the mentioned sciences have undeniable relation to each other, and laws of the nature proof this phenomenon. Thus, new researches for solving some problems in daily life should be focused on this idea. But, recent thesis released at life sciences have moved away this reality and put only some inapplicable results. Thus, all the unilateral information in these theses may stay in the published books at university library shelves, unfortunately. However, some initiatives on collaboration with private, governmental sectors and universities / research institutions had pioneers of this idea. Although some braches under departments like biochemistry, biophysics,

biostatistics under biology, chemistry and health sciences help for developments, more collaboration among the departments are needed for applicable results. With increasing problems in environment, agriculture, health and other sectors, needs for multidisciplinary studies are increasing. For example; biology, chemistry, agriculture, forestry, food engineering, medicine, pharmacy can collaborate to develop natural remedies from medicinal plants. Similarly, functional foods have been produced from useful plants by biotechnological techniques. Some environmental problems can easily been solved by collaboration with biology, chemistry, agriculture and forestry. In modern medical techniques, biometals have been produced by synergetic studies of metallurgy and biology. In conclusion, more and useful collaborations with related disciplines can produce novel techniques and products for human welfare and livable world in the future. Thus, countries should encourage multidisciplinary studies at their education, research and industrial sectors.

**Keywords:** Education, multidisciplinary, science, postgraduate

## LIFE-LONG LEARNING NECESSITY FOR MEDICINAL AND AROMATIC PLANTS

*Nazım ŞEKEROĞLU, Sevgi GEZİCİ*

Human being has been lived with nature and used the entire natural resources given throughout the history from the beginning to now. Plants grown around them have been used for all the needs especially in healthy life and curing some illnesses. Their effectiveness on the illnesses had been learnt by means of trial and error, and unconsciously uses of some poisonous plants revealed irreparable results. These undesired experiences by means of traditional herbal remedies, mostly resulted deaths, generated some well-informed mainly old people about herbal remedies with plants and they have been called as herbalist, healer, lokman hekim, kocakarı etc. Scientific developments especially in chemistry in the nineteen century accelerated. Afterwards, some pure natural compounds were determined and started to synthase chemically from plants, and totally chemical based drugs were produced. Because of their easy production process, lower costs, standardized products, fast effectiveness and other advantages, chemical drugs have been widely used and natural herbal remedies have been forgotten especially in developed countries. When undesired side effects of chemical drugs on human health and environment broke out in mid-1900, traditional healing systems, mostly herbal therapies, reputed again especially in developed countries like USA, Germany and Japan. In this period, alternative healing systems and traditional herbal therapies have been laid out in developing and undeveloped countries and use of herbal remedies on the worldwide is about 80%.

Both healthy life and curing for some illnesses by herbal remedies are increasingly going on, but informing activities of the local people about herbal therapies and products are insufficient in Turkey and all over the world. Related to huge interest to phytotherapies, especially in incurable diseases, some serious problems could be erupted in food safety and public health. Marvelously growing herbal health product sector has whet some opportunist appetite and this situation could allow for forgery and frauds. Moreover, unstandardized and fake herbal products have threatened public health. Nevertheless, all the stakeholders have insufficient or misinformation about medicinal plants and herbal therapies. Thus, all the sides from field to consumer must be urgently and continuously informed about this issue. Life-long learning programmes should be applied for all the people; wild plant collectors, medicinal plant producers on the field, industrial bodies, marketing staff, shopkeepers and also consumers as last point. Furthermore, all the curricula in related educational systems, mainly health education, should be revised and herbal remedies must be learnt to students. Thus, public health and food safety could easily been provided and people would be protected from crooks. In conclusion, life-long learning activities about medicinal plants and herbal therapies should be implemented to all the communities and public service announcements should be prepared.

**Keywords:** Education, multidisciplinary, science, postgraduate

## MEASUREMENT OF THE FERTILITY AND SEXUAL BEHAVIOR PARAMETERS OF STALLIONS IN ALGERIA

*Houssou Hind*

Equine reproduction is an evolving field, and selection of breeding, including stallion is becoming more severe. A complete and detailed semen analysis estimates the reproductive status of the stallion, but when this measure is not available, others exist such as estimators, Testicular measurements, testicular weight
Our study focused on the evaluation of sexual function; including the testicles: taking into account their measurements in order to assess sperm quantity producible daily new stallions of different breeds in Algeria; breeding stallions (the ONDEEC Constantine) over a period of six months (April-September 2010).
The parameters studied are changing their criteria testicular measurements (Ls, ltg, ltd, LGT, LTD, HTG, HTD) testicular parameters (VT, PT, DSO, DSP) are calculated from formulas.
The results obtained are:
Ls: 9.74 cm ± 0,35cm, ltd: 4.61 ± 0.18 ltg: 5.12 ± 0.16 cm, LGT: 7.07 ± 0.37 cm, LTD: 6.57 ± 0, 37 cm, HTG 5.33 ± 0.31 cm, HTD 5.16 ± 0.30 cm, PT: 529.90 ± 25.19 gr, VT: 195.22 ± 26.43 ML, DSP: 3 , 90,109 ± 0,33.109, DSO 2,87.109 0.23 ± .109.

**Keywords:** Algeria , biotechnology, stallion, fertility, testicular measurements.

## MEDICINAL PLANTS AND PHYTOTHERAPY AT HIGHER EDUCATION IN TURKEY

*Nazım ŞEKEROĞLU, Sevgi GEZİCİ*

Related to interest in healthy life and healing with medicinal plants on the worldwide, activities and precautions both governmental and private sector have been accelerated, recently. While private sector has made big investments on medicinal plants, governments have put into practice legislative regulations in order to protect their public. Additionally, research institutions and universities have speed up scientific projects, new higher education departments have been formed and curricula of the related departments have been revised according to needs in the sector. From past to now, there have been some lessons such as pharmacognosy, phytotherapy, pharmaceutical botany etc. in Pharmacy Faculties, and pharmacist have fundamental information on medicinal plants and phytotherapy. Except for pharmacy faculties, related departments like Field Crops under Agricultural Faculties give 'Medicinal and Aromatic Plants' lesson and Forestry Faculties teach 'Non-wood Forest Products' lesson to their students in undergraduate and postgraduate levels. Biology Departments under Art and Sciences Faculties serve 'Useful Plants' lesson, which partially related to Medicinal Plants, to their students. Graduates from 'Medicinal and Aromatic Plants Programme' under Plant and Animal Department at Two-Year Vocational Schools are expected to meet the technical staff requirement in the sector. Although all the related departments have some lessons about medicinal plants (wild harvest, cultivation, processing, analysis etc.) and phytotherapy in their curricula at common higher education in Turkey, unfortunately there are no lessons at Medicine Faculties' curricula. Thus, there have been some communication problems with medical doctors and their patients about medicinal plants and their uses for curing some illnesses. Having almost no information about traditional, complementary and alternative medicinal systems, medical practitioner cannot give any support to patients. In conclusion, patients could be easily ripped by crooks off, and they might loss both their money and also health. Published a report titled 'Complementary and Alternative Medicine in Medicine Faculty Curricula in Turkey' having herbal therapies issue pointed out that Medicine Faculties in some countries have 'Complementary and Alternative Medicine' issues in their curricula. In this report, medical doctors have no or insufficient information about 'Complementary and Alternative Medicine' including biological based therapies such as herbal therapy and food additives on the worldwide. Hopefully, almost all medical practitioners eagerly want to learn these therapies (Murt and Ozturk, 2012).

Regarding our rich plant diversity, deep ethnobotanical heritage and developments on the worldwide about medicinal plants and herbal therapies, our higher education system and curricula at related departments ought to be revised by current practices in developed countries, as soon as possible.

**Keywords:** Ethnobotany, higher education, medicinal plants, phytotherapy.

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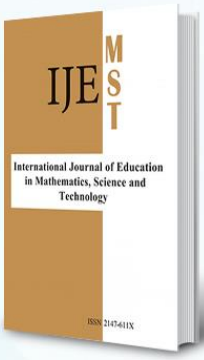


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